Seminar #1  2:00 PM–5:00 PM

KEYS TO SUCCESSFUL ACADEMIC CAREER DEVELOPMENT

Justin M. Nash, PhD, 1 Alan Christensen, PhD, 2 Susan Czajkowski, PhD, 3 Jared Jobe, PhD, 4 and Peter Kaufman, PhD, 5

1Brown Medical School/Miriam Hospital; 2University of Iowa; 3NIH; 4NIH; and 5NIH.

Understanding the keys to career development is critical for successfully building and maintaining an academic career in behavioral medicine. With the immediate and enduring pressures to produce or perish, knowing how to create and prioritize professional opportunities is instrumental in getting a career started and avoiding common pitfalls while climbing the academic ladder. Job satisfaction is contingent on positions that have expectations and demands in line with one’s professional interests and abilities. This seminar provides the keys to successful academic career development and satisfaction. The focus is on the practical tools of the trade, including the “ins and outs” of getting funded, getting published, building collaborative relationships, and managing competing professional demands. The seminar is geared toward those at the earlier stages of academic career development. This includes junior faculty, postdoctoral and graduate level trainees, as well as clinicians seeking to increase their research involvement. Seminar presenters include experts who are faculty, editors, and officers at major universities and the National Institutes of Health.

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Seminar #2  2:00 PM–5:00 PM

GETTING GRANTS: THE NUTS AND BOLTS OF GRANTWRITING

Ronald Seifer, PhD, 1 Michaela Kierman, PhD, 2 Lee Mann, MA, JD, 3 and Deborah Young-Hyman, PhD, 4

1Brown Medical School; 2Stanford University; 3National Institutes of Health; and 4National Institutes of Health.

Getting grants is an explicit expectation of research investigators and a key to successfully climbing the academic ladder. Grant funding provides salary support and necessary resources for conducting programmatic research. Getting grants is both an art and a science. One of the critical elements to successful grant funding is the grantwriting process, including knowing how to approach each section of the grant. Much of this seminar will focus on the nuts and bolts of grant writing. This includes how to approach, depending on the type of grant, the aims, significance, background, preliminary studies, research plan, methods of study, and human subjects sections. In this seminar, experts will address how to write each section, as well as how to conceptually integrate these sections to produce a product that makes a clear and convincing case for funding. In this seminar, also discussed will be how to work with collaborators, interact with staff at funding agencies, and respond to reviewer comments. This seminar is relevant for anyone who is considering or currently employed in positions where grant writing is a component. This includes those from early to mid stages of their careers. Expert presenters include those successful in getting grants, teaching grant writing at major research institutions, and funding grants at the National Institutes of Health.

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Seminar #3  2:00 PM–5:00 PM

COST EFFECTIVENESS ANALYSIS FOR BEHAVIORAL MEDICINE

Paul A. Fishman, PhD, 1 Denise Boudreau, PhD, 1 and Amy Bonomi, PhD, 1

1Center for Health Studies, Group Health Cooperative, Seattle, WA.

Cost effective analyses provide critical information about the economic consequences of alternative ways to improve population health outcomes. Increasingly scarce health care resources require that decision makers have information about the cost implications of effective interventions so that the tradeoffs associated with different ways of improving population based health can be fully evaluated. This seminar will introduce the concepts and practical issues related to cost effectiveness studies relevant to behavioral medicine. Alternative approaches that researchers and public and private decision makers may consider when conducting and using cost effectiveness studies will be reviewed. Issues related to planning for cost effectiveness analyses, the data necessary to conduct successful analyses and alternative empirical methods that may be used in these studies will be examined. Topics to be addressed include: the perspective that should be used in cost effectiveness studies, what outcomes should be used to measure effectiveness, what data elements must be collected and statistical techniques that are useful for cost effectiveness studies.

Examples from behavioral medicine will be used to illustrate each of the topics addressed in the seminar including programs to increase screening for cancer and sexually transmitted diseases, use of evidence based tobacco dependent treatment programs, treatment for depression and other mental health needs among others.

Seminar material is accessible to a non-technical audience, but is also relevant to those interested in conducting and applying economic analyses within behavioral medicine. Behavioral scientists, clinicians and health plan managers will benefit from the seminar. Economists and others interested in cost effectiveness analyses of behavioral health programs as well as designers and users of behavioral health interventions will also benefit from the presentation.

Handouts describing the different tools for cost effectiveness analyses as well as a complete bibliography of materials referred to during the seminar will be distributed.

CORRESPONDING AUTHOR: Paul A. Fishman, Center for Health Studies, Group Health Cooperative, Seattle, WA;
Seminar #4 2:00 PM–5:00 PM

THE BASICS OF PRACTICE AS A BEHAVIORAL HEALTH PROVIDER IN PRIMARY CARE

Alexander Blount, Ed.D.1
1Family Medicine and Community Health, University of Massachusetts Medical School, Worcester, MA.

The applicability of Behavioral Medicine services to the needs of patients in medical settings such as primary care is beyond question. In the past, these services have often been offered on a referral basis at a different location for the primary care setting. In essence, Behavioral Medicine services have been similar to other specialty services to which patients in primary care might be referred. Behavioral Medicine providers are just beginning to attempt to become part of the team of health providers in primary care. Many professionals trained in delivering Behavioral Medicine services do not understand the design or the practices of primary care medical settings.

This seminar will introduce behavioral medicine providers to the aspects of primary care practice which distinguish it from specialty medical practice. Participants will be learn more about the way behavioral health needs are presented by patients in primary care settings. They will learn to utilize innovations in language of care, sequence of care and relationships between providers that help to integrate behavioral health services into primary care. Finally, participants will learn ways of solving financial, confidentiality, and billing issues involved in beginning a practice in primary care.

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Seminar #5 2:00 PM–5:00 PM

STRATEGIES FOR INTEGRATING RESEARCH INTO PRIMARY AND SPECIALTY CARE SETTINGS

Peter Brawer, PhD,1 Steven Sayers, PhD,2 Andrew Cook, PhD,3 Judith DePue, EdD, MPH,4 and Barbara Walker, PhD5
1Psychiatry and Human Behavior, Brown Medical School and Butler Hospital, 345 Blackstone Blvd., Providence, RI, 02903; pbrawer@lifespan.org
2Research, Robert Wood Johnson Foundation, Princeton, NJ; 3Communications, Health Matrix, Inc., McLean, VA; and 4Communications, McCann Consulting, Washington, DC.

The applicability of Behavioral Medicine services to the needs of patients in medical settings such as primary care is beyond question. In the past, these services have often been offered on a referral basis at a different location for the primary care setting. In essence, Behavioral Medicine services have been similar to other specialty services to which patients in primary care might be referred. Behavioral Medicine providers are just beginning to attempt to become part of the team of health providers in primary care. Many professionals trained in delivering Behavioral Medicine services do not understand the design or the practices of primary care medical settings.

This seminar will introduce behavioral medicine providers to the aspects of primary care practice which distinguish it from specialty medical practice. Participants will be learn more about the way behavioral health needs are presented by patients in primary care settings. They will learn to utilize innovations in language of care, sequence of care and relationships between providers that help to integrate behavioral health services into primary care. Finally, participants will learn ways of solving financial, confidentiality, and billing issues involved in beginning a practice in primary care.

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Seminar #6 2:00 PM–5:00 PM

COMMUNICATING RESEARCH FINDINGS: THE INTERSECTION OF SCIENCE, MEDIA AND PUBLIC POLICY

C. Tracy Orleans, Ph.D.,1 Prabhj Ponske, M.A./L.L.B.,2 and Barbara McCann, B.A.3
1Research, Robert Wood Johnson Foundation, Princeton, NJ; 2Communications, Health Matrix, Inc., McLean, VA; and 3Communications, McCann Consulting, Washington, DC.

Seminar Summary:
Two policy experts and former journalists will help researchers understand how strategic communications can be incorporated into research projects and programs in order to ensure that the results have maximum impact in the policy arena. The seminar will cover all stages of the process, from proposal writing through publication and communicating results to key audiences, including the media. The session will emphasize the value of involving policy and decision makers upfront to help assure that the research asks questions relevant to policy and decision makers.

The seminar is designed for behavioral researchers who are engaged in individual projects or have a role in managing research centers or programs. The interactive session will present case studies of research effectively used in the public sphere, and will ask attendees to apply what they are learning through discussion of actual or hypothetic research projects in progress.

The session will include a tutorial on how to evaluate and prepare research findings for public dissemination, including:
Questions that will help evaluate the communications value of research findings
Researchers’ role in translating research into products for public consumption.

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Seminar #7 2:00 PM–5:00 PM

INTRODUCTION TO ITEM RESPONSE THEORY: METHODS AND APPLICATIONS

David R. Strong, Ph.D.1
1Psychiatry and Human Behavior, Brown Medical School and Butler Hospital, Providence, RI.

SEMINAR SUMMARY:
Methods based in item response theory (IRT) are rapidly being deployed to assist researchers who are faced with the complexities of assessing the effectiveness of interventions with patient reported-outcome measures (PRO). This workshop is designed to introduce methods based in modern test theory by examining existing applications of these methods in assessing PRO measures and exploring potential contributions of modern methodologies in improving outcome measurement. This workshop will review the differences between traditional methodologies and IRT methods, common assumptions of item response models, differences among nonparametric and parametric models, and various methods and software for estimating item parameters. We also will review methods for assessing differential item functioning, the evaluation of item and test information, and the development of item banks for computerized adaptive testing, and methods for equating/linking measures when developing and refining PRO measures.

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Seminar #8
2:00 PM–5:00 PM

MB-EAT (MINDFULNESS-BASED EATING AWARENESS TRAINING): THEORY AND PRACTICE

Jean L. Kristeller, Ph.D.,1 and Ruth Quillian-Wolever, Ph.D.2
1Psychology, Indiana State University, Terre Haute, IN; and 2Duke Center for Integrative Medicine, Duke University Medical Center, Durham, NC.

This workshop is intended for a range of practitioners, with particular value for those working with health behavior change. Prior experience with meditation practice is helpful but not necessary.

Mindfulness approaches to treating eating disorders offer substantial promise. This workshop will introduce the conceptual background, research evidence and treatment components of a mindfulness meditation-based intervention used effectively with individuals with compulsive eating problems and significant weight problems (Kristeller & Hallett, 1999). An overview of our manualized NIH-randomized clinical trial will be presented, along with experiential material related to increasing patients’ experiences of improved self-regulation, and expanded portions developed for addressing weight loss as part of our new NIH-trial. Portions of a video of participants’ experiences will be shared.

In these participants, meditation appears to act by rapidly promoting self-awareness, internalization of control and self-acceptance. Therefore, this approach may be useful not only as a component of treatment for BED, but may help expand our understanding of underlying processes of how self-awareness may contribute to emotional, behavioral and physiological self-regulation.

Experiential work will include presentations of some of the guided meditations for the workshop participants to experience. Mindfulness exercises using actual food will be used, in addition to other eating and general meditation exercises.

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Thursday
April 14, 2005
8:30 AM–10:00 AM

B-1

THE EFFECTS OF PREMENSTRUAL SYNDROME (PMS) ON PAIN IN PATIENTS WITH SICKLE CELL DISEASE

Christopher L. Edwards, Ph.D.,1,2,4 Miriam Feliu, Psy.D.,1,2,4 Mylene O. Harrison, M.D.,1 Mary Wood, M.A.,1,2 Goldie Byrd, Ph.D.,3 and Laura DeCastro, M.D.4
1Psychiatry, Duke University Medical Center, Durham, NC; 2Pain and Palliative Care Center, Duke University Medical Center, Durham, NC; 3Biology, A&T State University, Greensboro, NC; and 4Medicine, Division of Hematology, Duke University Medical Center, Durham, NC.

Premenstrual Syndrome (PMS), which has been diagnostically characterized in DSM-IV as Premenstrual Dysphoric Disorder, is a type of menstrual onset, manifestation, and resolution indicated by the experience of increased heaviness, lower abdominal and breasts pain, nausea, lack of appetite, constipation, headaches, backaches, depressed mood, anxiety, and affective lability. We evaluated the effects of self-reported PMS on reports of chronic pain intensity and character in twenty-eight women (mean age 38.93 ± 13.51) with Sickle Cell disease (SCD). Typed using the Menstrual Symptoms Questionnaire, we compared women with PMS to those with less distressing or undifferentiated menstrual types. Thirty-four percent of the sample used oral contraception; there were no significant effects of birth control use on reports of pain.

Women with PMS characterized the sensory (p=.04) and affective (p=.04) experiences of their SCD-related chronic pain, including their current pain intensity (p=.03), as significantly lower than women with less distressing or undifferentiated menstrual types. There further was a trend towards significance for women with PMS to report lower levels of overall pain intensity (p=.07) and average pain intensity over the past month (p=.08). The authors interpret these results to suggest that there may be a complex interaction of neurohormonal, biological, and psychological factors associated with PMS associated with the manifestation and experience of chronic pain in patients with SCD.

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B-2
THE EFFECTS OF PREMENSTRUAL SYNDROME (PMS) ON LABORATORY PAIN AND CARDIOVASCULAR REACTIVITY IN A COLLEGE SAMPLE

Christopher L. Edwards, Ph.D.,1,2 Stephanie Johnson, Ph.D.,1,2 Goldie Byrd, Ph.D.,2 Gary G. Bennett, Ph.D.,4 and Elwood Robinson, Ph.D.5

1Psychiatry, Duke University Medical Center, Durham, NC; 2Pain and Palliative Care Center, Duke University Medical Center, Durham, NC; 3Biology, A&T State University, Greensboro, NC, 4Harvard School of Public Health, Harvard, Boston, MA; and 5Psychology, North Carolina Central University, Durham, NC.

We recently found that Premenstrual Syndrome (PMS) was associated with decreased reports of chronic pain in patients with Sickle Cell Disease. We evaluated the effects of PMS on reports of laboratory-induced pain and cardiovascular reactivity in sixty female students, mean age 19.63 (2.74). Typed using the Menstrual Symptoms Questionnaire, we compared reactions to a painful finger stimulus in women with PMS (n=20) to those with less distressing or undifferentiated menstrual types, with a trend towards significance for their affective response to pain (p=.07). Women with PMS further exhibited significantly less reactivity in their mean arterial pressures (p=.05), and a trend for less reactivity in diastolic blood pressure (p=.08). Cardiovascular reactivity as measured by the change in systolic, diastolic, and mean arterial pressures from baseline to the peak of the painful stimulus was significantly and positively correlated with reports of pain as measured by all four pain indices (sensory, affect, PPI, VAS). We conclude that PMS may be associated with changes in cardiovascular reactivity that influence the experience of both laboratory and chronic disease-related pains.

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B-3
POST-STROKE NONVERBAL COMMUNICATIVE DEFICITS AND PARTNER WELL-BEING

Lee X. Blonder, Ph.D.1 and L. Creed Pettigrew, M.D.2
1Behavioral Science and Sanders-Brown Center on Aging, University of Kentucky, Lexington, KY; and 2Neuropsychology and Sanders-Brown Center on Aging, University of Kentucky, Lexington, KY.

For over a century, research on brain-damaged patients has shown that lesions in the left hemisphere produce language disorders while injury to the right hemisphere results in impaired nonverbal communication. Most clinical research on nonverbal communicative competence has used experimental methods conducted in a laboratory setting. Few studies have examined patients’ or their partners’ awareness of nonverbal communicative deficits or the impact of perceived deficits on well-being. In this study, eleven right hemisphere damaged (RHD) stroke patients and their healthy partners were asked to rate the patient’s prosodic and facial expressivity, vocal volume, speech rate, and frequency of smiling, laughing, crying, yelling, and eye contact on a five-point scale. These ratings were compared to ratings made by ten orthopedic control patients and their healthy partners. Results indicated that RHD patients rated themselves as having reduced volume, and less frequent smiling, laughing, and eye contact relative to controls’ self-ratings. Furthermore, relative to control partners, partners of RHD patients rated their patient as having reduced speech rate and eye contact and more frequent crying. Finally, RHD partner ratings of patient eye contact and crying frequency correlated with negative outcomes such as partner perceptions of stress and marital dissatisfaction. These results suggest that both RHD patients and their partners are aware of post-stroke abnormalities in nonverbal communication and that they impact partners’ well-being. These findings also show that past experimental research documenting non-verbal communicative abnormalities following RHD has ecological validity, given that the participants in this study derive their observations from “real life.”

This research was supported by NIH/NINDS Award R29NS29082.

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B-4
THE EFFECT OF THE LEVEL OF HIGH AND LOW DENSITY LIPOPROTEIN CHOLESTEROL ON THE COGNITIVE AND EMOTIONAL FUNCTIONS IN MIDDLE-AGE WOMEN

János Kállai, Ph.D.,1 Katalin Károssy, M.D.,2 Zsuzsanna Kerekes, M.D.,1 Dávid Horváth,4 Árpád Csátho, M.D.,4 and Péter Göcze, Ph.D.3
1Institute of Behavioral Sciences, University of Pécs, Pécs, Baranya County, Hungary; 2Institute of Psychology, University of Pécs, Pécs, Baranya County, Hungary; and 3Obstetrics and Gynecology Clinic, University of Pécs, Pécs, Baranya County, Hungary.

Research results suggest that plasma HDL levels are associated with higher cognitive function in older ages. Serum cholesterol and LDL levels are either related to cardiovascular disease and shows a negative correlation with the emotional status of older women. This study aimed to reveal the relationship between life satisfaction, emotional state, verbal, and spatial cognitive functions and lipid metabolic scores (HDL, LDL, cholesterol) in postmenopausal women. Subjects: The sample consisted of 50 outpatients women of an ambulance for menopausal patients. The mean age of the subjects was 51.1 years (S.D.=6.2) with a range from 42-66 years. Methods: HDL, LDL, and cholesterol in serum was defined by a standard method (in mmol/l), and BMI (in kg/m2), life satisfaction, and mental state was assessed. To measure the memory and perceptuomotor functions the WCST, Verbal Fluency Test, Focused Attention Test, Rey-figure Drawing and Trial Making AB were utilized. Results: The cholesterol and LDL levels showed negative correlation with depression, anxiety scores. High level of cholesterol was associated with cognitive declines in the Rey-figure drawing visuospatial short term memory. HDL level correlated positively with verbal fluency, visuospatial memory, focused attention and general higher cognitive functions. Conclusion: Subjects with high cholesterol have more positive emotional attitude towards herself but they have better cognitive dysfunctions than subjects with lower level cholesterol. Subjects with high level HDL have better cognitive functions with openness toward her outer surrounding.

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B-5
HIGHLY ACTIVE ANTIRETROVIRAL THERAPY AND NEUROPSYCHOLOGICAL IMPAIRMENT IN HIV-POSITIVE INDIVIDUALS: A SYSTEMATIC REVIEW AND META-ANALYSIS

Christopher J. Johnson, M.A.,1 and John S. Wiebe, Ph.D.1
1Department of Psychology, University of Texas at El Paso, El Paso, TX.

Highly active antiretroviral therapy (HAART) has been shown to reduce or eliminate neuropsychological impairment in HIV-positive patients in a number of studies. However, the nature and significance of HAART’s effect on cognitive function in HIV-positive individuals remains somewhat equivocal. The purpose of the present study was to investigate whether HAART is beneficial for the cognitive, motor, and behavior impairments that accompany HIV infection, to quantify any benefits, and to investigate whether those benefits are long-term. We conducted a systematic meta-analytic review, investigating recent published research efforts from the post-HAART era. Studies were identified using (a) searches of electronic databases, (b) manual reviews of the tables of contents of relevant journals, and (c) manual reviews of the reference lists of identified studies. This search strategy identified 93 possibly relevant studies that were examined in detail. Seven studies met inclusion criteria and were retained for statistical analysis. Random effects models were used to combine effect size statistics in domains of attention, memory, abstraction, language, visuospatial, and motor abilities. Mean weighted effect sizes ranged from r = .20 to r = .69, indicating that HAART is significantly associated with better neuropsychological function in HIV-positive individuals. The z² statistic was used as a test of heterogeneity between studies. Neuropsychological performance varied as a function of test battery length and treatment duration. Data support the premise that HAART may enhance neuropsychological performance.

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THE EFFECTS OF AN AEROBIC INTERVENTION ON EXERCISE SELF-EFFICACY AND BLOOD PRESSURE REACTIVITY TO STRESS

Tara J. DeWitt, B.A., 1 Jennifer P. Friedberg, M.A., 1 Danielle V. Shelov, B.A., 1 and Sonia Suchday, Ph.D. 1

Self-efficacy theory indicates that an individual’s assessment of their capabilities is behaviorally and contextually specific. According to Bandura’s model, an individual’s perception of self-efficacy is derived from: direct mastery experience, vicarious experience, physiological states and verbal persuasion. Exercise self-efficacy specifically measures an individual’s level of confidence to engage in physical activity when presented with barriers to exercise. Research has shown that an individual’s level of exercise self-efficacy is an independent predictor of their adherence to a prescribed exercise program. The present study investigated the effects of an 8-week low impact aerobicics intervention on exercise self-efficacy and blood pressure reactivity to stress. It was hypothesized that exercise self-efficacy will increase following an 8-week aerobicics intervention and an increase in physical activity will decrease blood pressure reactivity during a social and non-social stressors. Participants were normotensive members of a medical center and academic institution (N=7; mean age = 38.14; 85.7% female, 85.7% Caucasian). A Dinamap Automated Blood Pressure Monitor measured and recorded blood pressure during laboratory sessions. Exercise self-efficacy was measured using Bandura’s scale (Cronbach’s alpha = .88). Exercise self-efficacy increased slightly (t(7) = -6.27, p = .55) and systolic blood pressure reactivity to the non-social (t(7) = 28, p = .79) and social stressor (t(7) = 2.14, p = .08) decreased slightly following the aerobicics intervention. The findings are not significant but are noteworthy given the sample size. They support the hypotheses that exercise self-efficacy will increase and systolic blood pressure reactivity will decrease during stressors following an aerobicics intervention.

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AEROBIC EXERCISE IMPROVES EXECUTIVE FUNCTIONING IN OBESE CHILDREN

Mathew Gregoski, B.A. 1 Philip Tomporowski, Ph.D., 2 and Catherine L. Davis, Ph.D. 1

This study tested the effect of aerobic exercise training on cognitive functioning in obese children. Thirty healthy overweight children (BMI > 85th percentile for age and gender; mean BMI percentile = 98) ages 8-11 (63% female, 90% black) were recruited from local elementary schools and randomized to 10-15 weeks of intervention (Control: No exercise; Low Dose Exercise: 20 min/day; High Dose Exercise: 40 min/day). Exercise consisted of vigorous aerobic activities and games that maintained average heart rate above 150 bpm. The Cognitive Assessment System (CAS), a standardized test of mental functioning, was administered individually prior to and following interventions. Change scores were calculated from standard scores obtained from four scales of the CAS (Planning, Attention, Successive, and Simultaneous). Executive function (Planning, Attention) was hypothesized to improve after exercise, while other aspects (Successive, Simultaneous) would not.

ANOVA revealed improvement for the Planning scale of the CAS, (F(2,27) = 3.54, p < .05). Children in the high dose group had significantly higher change scores (MaSD = 11.7 ± 10.9) than the control group (MaSD = 2.2 ± 5.2, p = .05), with the low dose group (MaSD = 8.2 ± 5.9) in between. Other cognitive measures did not show an effect.

Aerobic exercise training may be beneficial to aspects of mental functioning that underlies control, intentionality, and self-regulation in obese children. The pattern of change between groups suggests a dose-response effect. These results provide evidence for a direct relation between physical activity and children’s cognitive development. This is important because it may address barriers to physical activity in schools.

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PSYCHOSOCIAL FACTORS AND METABOLIC RISK FACTORS IN YOUNG WOMEN

Samara Khalique, B.A.,1 and Kathryn G. Low, Ph.D.1

Previous research has shown that hostility, depression and stress may increase the risk of metabolic syndrome, a clustering of risk factors for both coronary heart disease (CHD) and diabetes, which includes elevated levels of fasting insulin, glucose, and cholesterol; abdominal adiposity; and high blood pressure. This study examined the relationship between stress, depression, and cortisol and the metabolic syndrome in 46 undergraduate women. Physiological variables that were measured include serum cholesterol, blood pressure, HbA1C, fasting blood glucose, and serum cortisol levels. Logistic regression revealed that depression was a significant predictor of metabolic syndrome risk after controlling for waist-to-hip ratio, family history, and oral contraceptive use. In addition, depression and cortisol may interact to predict metabolic risk, in the direction of more depressed women having stronger associations between cortisol and physiological risk. Hostility was not associated with risk status. The role of negative affect and cortisol in the development of metabolic risk deserves further attention.

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B-11 Meritorious Student Poster

MODELING LIFESTYLE VARIABLES, FATNESS, AND LIPIDS IN ADOLESCENTS

Marilyn Lopez, M.S.,1 Patrice G. Saab, Ph.D.,1 Maria M. Llubre, Ph.D.,1 Ronald B. Goldberg, M.D.,2 and Judith R. McCalla, Ph.D.1

The insulin metabolic syndrome (IMS) is associated with increased risk for coronary heart disease (CHD). Factors contributing to IMS have been under-studied in adolescents. This study aimed to examine the interrelationships among predisposing CHD risk factors, and causal CHD risk factors using structural equation modeling. A hybrid model was specified where overall fat distribution, indexed by body mass index (BMI), mediates the relationship between lifestyle factors (aerobic fitness, physical activity, diet) and lipids. Aerobic fitness was determined by maximal oxygen consumption; physical activity by seven-day activity recall; and diet by 24-hour dietary recall.

Data from 205 adolescent boys (73%) and girls were used to test the model. Half of the participants had elevated blood pressure and a positive parental history of hypertension. On average, participants were overweight, aerobically unfit, and not dyslipidemic. Two-thirds consumed excess fat and dietary cholesterol. The model fit the sample data well, [χ² (27) = 33.78, p = .17; CFI = .98; RMSEA = .04]. Physical activity predicted aerobic fitness; diet and aerobic fitness, but not physical activity, predicted BMI, which predicted increases in high density lipoproteins and decreases in triglycerides and low density lipoproteins (LDL). Diet did not predict LDL.

Prevention efforts should begin with lifestyle interventions focusing on both increasing aerobic fitness by way of increasing physical activity and making dietary changes. Future studies should extend these findings in adolescents and test insulin resistance as a mediator of lifestyle variables, fatness, and lipids.

Supported by NIH grant P01HL36588.

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B-12 IS GORGING AMONG OBESE WOMEN ASSOCIATED WITH DIFFERENCES IN TOTAL DAILY ENERGY EXPENDITURE?

Teresa M. Hughes, Ph.D.;1 Tracy Sbrocco, Ph.D.;1 Patricia A. Deuster, Ph.D., M.P.H.2; Kristy L. Morris, M.S.;1 and Su-Jong Kim, M.S.1

1Medical & Clinical Psychology, Uniformed Services University, Bethesda, MD; and 2Military & Emergency Medicine, Uniformed Services University, Bethesda, MD.

Skipping meals is a common weight loss strategy, which may be counterproductive because long periods between meals may result in energy conservation and decrease total daily energy expenditure (TDEE). The relationship of gorging to metabolic rate and body composition was examined in normal weight (BMI<25) and obese (BMI>30) individuals. Gorging was defined as ≤2 meals/day with at least seven hours between waking and first meal for ≤3 days/week. Methods: Obese gorging (n=12), non-gorging (n=11); normal-weight gorging (n=14), and non-gorging (n=14) healthy women recorded daily energy intake for one-week using computerized eating diaries. Percent body fat (BF) was measured using dual energy X-ray absorptiometry (DEXA). Total energy expenditure (TEE) was measured: resting metabolic rate (RMR), dietary-induced thermogenesis (DIT), and active metabolic rate (AMR). Data were analyzed using 2x2 ANOVAs or ANCOVAs. Results: Gorging groups reported significantly lower energy intakes, however, calculated energy needs based on RMR and activity showed no difference. BF was significantly lower in Normal compared to Obese, and not affected by eating pattern. TEE was not affected by eating pattern. No significant interaction or main effects of eating pattern were noted for RMR, AMR, or DIT before or after adjusting for lean body mass. RMR, AMR, and DIT were, however, significantly higher in Obese compared to Normal weight women. Conclusion: Despite consuming less energy and having comparable TDEE, gorgers did not have lower body weights or BF. Future studies should examine self-reported eating behavior accuracy. Reports by gorgers may be less accurate than non-gorgers due to larger meal size.

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B-13 BODY COMPOSITION PREDICTORS OF PHYSICAL ACTIVITY


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Retrospectively examined the relationship between body composition measured at 12-months on total rates of physical activity over the same 1-year period. Subjects were obtained from a sample of middle-aged males and females (n = 120). Physical activity was assessed with the Baecke physical activity questionnaire at baseline, 6 and 12-months. Body composition variables, measured by body mass index (BMI), computerized tomography (CT) and dual-energy X-ray absorptiometry (DEXA), were obtained at baseline and 12-months. Body composition variables were entered into regression models to predict total rates of physical activity from baseline to 12-months, with results as follows: BMI: r² = .04, p < .05; total body fat: r² = .05, p < .03; trunk fat: r² = .05, p < .02; total adipose tissue: r² = .05, p < .03; visceral adipose tissue: r² = .06, p < .01. The variance accounted for in each model was surprisingly consistent across each method and measure of body composition. In addition, baseline analyses of the predictors were non-significant. Results suggest that adiposity was significant in predicting physical activity over the past year, but was not a significant predictor of prospective physical activity behavior, indicating that participants who engaged in higher levels of physical activity over the past 12-months had 4%-6% lower rates of adiposity at the end of that same year.

This study was conducted while the first author was at the Pennington Biomedical Research Center. Supported by the National Dairy Institute.

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B-14
IMPAIRED STRESS-INDUCED PRESSURE NATRIURETIC IS RELATED TO LARGER LV MASS
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A significant number of youth decrease sodium excretion (UNaV) during stress resulting in a volume-mediated increase in BP rather than the normal resistance-mediated increase. We hypothesize that this pattern referred to as impaired stress-induced pressure natriuresis (SIPN) contributes to the early development of essential hypertension and associated target organ damage. The purpose of this study was to determine the association between impaired SIPN and target organ changes to the heart as assessed by left ventricular mass/height2.7. The 157 subjects were classified into those that showed normal development of essential hypertension and associated target organ damage. The mass/height2.7 as was lower UNaV during stress (r=-0.32; P=0.04 for both). Furthermore, a higher MAP during the final hour was associated with a greater left ventricular mass/height2.7 (r=.31; P=0.05). In conclusion, the results of this study support our hypothesis. In so doing, they provide an alternative model to the reactivity model through which stress may contribute the development of hypertension and associated target organ damage.
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B-15
RACE DIFFERENCES IN STRESS-INDUCED PRESSURE NATRIURETIC
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The mechanism(s) through which stress contributes to race differences in hypertension has not been established. Our previous studies demonstrated impaired stress-induced pressure natriuresis in a significant percentage of black youth. The purpose of this study was to examine race differences in this response pattern. The 78 black and 66 white youths aged 17 and 18 yrs underwent a stress protocol that consisted of a 1-hour competitive video game task preceded and followed by 2 hour rest periods. The subjects with impaired SIPN had higher mean arterial pressure (MAP) prior to (77±7 v 74±6 mmHg; P=0.01) and following (75±6 v 78±6 mmHg; P=0.04) the stress period, with similar levels during stress and changes pre-and post stress. The impaired SIPN group had significantly greater left ventricular mass/height2.7 (36± 3±7 g/m2; P= 0.05). Within the impaired group, a greater decrease in stress-related natriuresis was associated with greater left ventricular mass/height2.7 as was lower UNaV during stress (r=0.32; P=0.04 for both). Furthermore, a higher MAP during the final hour was associated with a greater left ventricular mass/height2.7 (r=0.3; P=0.05). In conclusion, the results of this study support our hypothesis. In so doing, they provide an alternative model to the reactivity model through which stress may contribute the development of hypertension and associated target organ damage.
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B-16
THE CONCORDANCE FOR DEPRESSION BY AGE AND GENDER IN AFRICAN AMERICAN TWINS
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Depression is typically considered relative to individuals and thought to originate from both biological and environmental factors. However, the environmental constraints and insults that African Americans experience might obscure findings of genetic influence. The purpose of this analysis was to examine the concordance by age and gender for depression scores among adult African American twins. Monozygotic (MZ)(101) and Dizygotic (DZ)(116) twins, age 25-88 years in the Carolina African American Twin Study of Aging were examined using an 11 item version of the CES-D measure of depressive symptomatology. Those participants with scores above 9 were considered depressed. Overall, the MZ pairs had a higher concordance than the DZ pairs implying genetic influence. Both MZ and DZ males had higher concordances than either female zygosity groups. The difference between the concordance rates for MZ and DZ twin pairs was greater in males than females. By age group, the difference between the concordance rates for the younger MZ and DZ twin pairs were much larger than for older pairs. There was no consistent pattern found when age was categorized into 10 year age groupings. The results suggest that even though African Americans may be at risk for depression due to contextual/environmental factors, genetic influences remain important.
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B-17 Meritorious Student Poster
DISTRESS AND IMMUNE ACTIVATION IN LUNG CANCER
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Background: Lung cancer patients report more distress than patients with other advanced cancers. Distress-related endocrine activation may lead to suppression of immune mechanisms relevant to cancer defense. We hypothesized that cancer-specific distress would be associated with circadian cortisol disruption and immune suppression, measured by natural killer (NK) cell counts and activation. Methods: Lung cancer patients (n = 62; Men = 27, Women = 35) provided self-reports of cancer-specific distress (avoidance, intrusive ideation, and overall distress). Nine Hierarchical regression analyses were used in exploratory examinations of the effects of cancer-specific distress on diurnal cortisol slope, percents of natural killer (NK) cells (CD3 positive, 56 negative) and NK cell activation measured by the CD69 early stage activation marker. Cancer stage and current chemotherapy treatment were statistically controlled. Results: Patients who reported more cancer-specific distress had fewer activated (CD3 negative, 56 positive, 69 positive) NK cells. Avoidance, intrusive ideation, and total cancer-specific distress scores all demonstrated significant explanatory power with regard to this outcome. No effects of cancer-specific distress on the diurnal cortisol slope or the absolute number of NK cells were observed. Conclusion: These results suggest that cancer-specific psychological variables may be relevant to immunosuppression in patients with lung cancer.
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B-18

PSYCHOBIOLOGICAL EFFECTS OF PSYCHOSOCIAL STRESS IN HEALTHY PREGNANT WOMEN

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Recent literature suggests that the course of pregnancy and birth outcome is influenced by the experience of stressful events. Psychosocial stress in particular seems to increase the risk of pathological pregnancy complications via psychoneuroendocrinological pathways. Dysregulations of the hypothalamus-pituitary-adrenal (HPA)-axis may trigger preterm labor and/or exaggerations of the sympathoadrenal medullary (SAM)-system may provoke gestational hypertension, preeclampsia, and eclampsia. Up to now it is unknown how psychosocial stress influences the HPA-axis and SAM-system healthy pregnancies.

The aim of our study was to identify the psychobiological responses to standardized psychosocial stress (public speaking and mental arithmetic) in pregnant women. We exposed 30 healthy pregnant women at the beginning of the second trimester (group 1), 30 healthy pregnant women at the beginning of the third trimester (group 2) and 30 healthy non-pregnant controls (group 3) to the stressor. Stress responses were assessed by psychometrics, endocrine parameters from saliva samples (cortisol and alpha-amylase as an indirect indicator of NE), and heart rate as an additional parameter of the SAM system. Baseline data show elevations of all biological parameters in group 2 to in contrast to the other groups. Stimulated responses from SAM and HPA show significant increases in group 1 and 3 following stress exposure, but nearly no responses in group 2. The data can be interpreted as ceiling effect of stress hormones during the last trimester of pregnancy and stand in line with studies showing that naturally occurring stressors have most negative effects on the course of pregnancy during the first two trimesters.

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B-19

RECOVERY FROM SOCIAL STRESS: SLEEP MATTERS

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Research shows that people with Fibromyalgia Syndrome (FMS) have difficulties sleeping and they react strongly to stressful events. Given the paucity studies on the impacts of such sleep disruptions on FMS patients’ reactions to stressors, we tested the hypothesis that their sleep disruptions would predict incomplete recoveries from social stressors. Participants were 89 women who met American College of Rheumatology criteria for primary FMS (88.8% Caucasian; 69.7% married or living with partner; mean age of 44.4 years). Over 30 consecutive days, participants reported pain and mood on handheld computer. Upon awakening, participants recorded the total number of sleep hours for the previous night and, at bedtime, reported negative events during that day. Using multi-level modeling (PROC-mixed), analyses controlled for study day, time of assessment, and current pain; moreover, the autoregressive covariance matrix controlled for serial dependencies of repeated measures. As hypothesized (controlling for the pain-mood relationship), after nights of little sleep, there was a prospective, within-person, relationship between negative events and positive affect (p < .01) and negative affect (p = .055). Conversely, after nights with large amount of sleep, no prospective relationship between stress and mood resulted. Consistent with allostatic load theories, therefore, sufficient sleep appears to be a biobehavioral resource that facilitates emotional recovery from socially stressful days.

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MATERNAL SOCIOECONOMIC STATUS DOES NOT INFLUENCE INFANT CORTISOL RESPONSES

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A growing body of research has shown links between socioeconomic status and health. Low SES has been associated with a variety of health problems, including greater levels of stressful life events and perceived stress. Given links between SES, stress, and health, physiological responses to stress have been proposed as one mechanism underlying links between SES and health. Recent studies have shown links between low SES and alterations in cortisol responses in adults and children. For children, lower parental SES was associated with higher cortisol in younger but not older children. However, no studies have examined the influence of parental SES on cortisol levels in infant offspring.

We examined the influence of parental SES on basal and stress-induced cortisol responses in two independent studies. Study 1 involved 62 mothers and their 1-2 day-old newborns. Study 2 involved 62 mothers and their 10-30 day-old infants. Parental SES was determined using the Hollingshead Socioeconomic Status interview, and infant cortisol levels were measured from saliva samples.

Unexpectedly, we found no influence of parental SES on basal cortisol levels in newborns or infants. Results suggest that effects of parental SES on offspring stress responses do not emerge during early infancy, but may become apparent in early childhood. Future studies should replicate the present results and examine effects of parental SES from infancy to adolescence.

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B-21

ACUTE CHANGES IN CORTISOL FOLLOWING EXPRESSIVE WRITING AMONG INDIVIDUALS WHO HAVE EXPERIENCED LOSS

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This study examined acute changes in cortisol levels and affective states during an expressive writing intervention. Forty-two participants (62% female, 76% Caucasian, mean age = 20.6 years) who had experienced a significant interpersonal loss were randomized to one of the following groups: emotional disclosure (ED), sense-making (SM), benefit-finding (BF), or a control condition. Individuals in the SM and BF conditions received more focused writing instructions than those assigned to the traditional ED condition. Participants wrote three times for 20 minutes over one week. Salivary cortisol levels and affective states were assessed immediately prior to and following the writing sessions, and complicit grief (CG) symptoms were measured before and after the intervention. A number of significant results were found during the first session. Time since loss was controlled for in all analyses, although results remained significant without including this covariate. Participants in the SM condition demonstrated significant decreases in cortisol compared to the control group, F(1,16) = 4.46, p = .05. There was a significant Group x Time interaction for positive affect, F(3,32) = 3.02, p = .04; with the BF group demonstrating the greatest increase. In the total sample, higher baseline levels of CG were also associated with decreased post-writing cortisol levels when controlling for pre-writing cortisol levels, β = -.29, p = .006. Expressive writing resulted in acute decreases in cortisol and increases in positive affect, which may help explain the benefits of writing interventions.

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THE ROLE OF ANGER IN CARDIOVASCULAR REACTIVITY IN FUTURE CARDIOVASCULAR PROFILES IN YOUNG ADOLESCENTS

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Despite inconsistencies in the literature, there is a growing body of evidence that links cardiovascular reactivity (CVR) to future cardiovascular disease (CVD). Because CVD is a life-long process with beginnings in childhood, the need to understand the role that CVR has in future CV profiles is important. This study examined data collected as part of The Heartfelt Study (N = 374), which investigated CVR in relation to 24-hour ambulatory blood pressure (BP) in a multi-ethnic (African, Hispanic, and European American) sample of adolescents (Time 1). Approximately 20 months later, a follow-up for all The Heartfelt Study participants, 11 to 13 years old at the beginning of study, still in attendance at the middle school was conducted (Time 2) to determine the extent to which CVR, initiated by talking about a recent anger-producing event, related to future ambulatory CV profiles (N = 44). A mixed-effects regression model was used to analyze the data and found that systolic BP reactivity at Time 1 was significantly (β = 0.234, t = 5.91, p < 0.0001) associated with ambulatory systolic BP at Time 2, and pulse pressure reactivity at Time 1 was significantly (β = 0.1530, t = 5.70, p < 0.0001) associated with ambulatory pulse pressure at Time 2. Further research on the effects of CVR among young adolescents over longer periods of time is recommended.

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ASSOCIATIONS BETWEEN INFLAMMATORY MARKERS AND DEPRESSIVE SYMPTOMS IN ACUTE MYOCARDIAL INFARCTION PATIENTS

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Depression has been implicated in the development, course, and outcome of coronary heart disease (CHD). Inflammatory activity is associated with both depression and CHD. Thus, in CHD patients, inflammatory processes may contribute to depression, may reflect the effects of depression, or both. Depression and inflammatory activity were examined in a sample of 72 acute myocardial infarction (MI) patients. Depressive symptoms were assessed using the 1) Center for Epidemiological Studies–Depression scale (CES-D), 2) Primary Care Evaluation of Mental Disorders and 3) Maastricht interview for vital exhaustion. Plasma interleukin-1β (IL-1β), interleukin-6 (IL-6), and C-reactive protein (CRP) were measured using enzyme-linked immunosorbent assays. Controlling for several demographic and biomedical covariates, results indicated a positive association between IL-1β and CES-D depressive symptoms scores (β = .417, p < .05, n = 48). Using logistic regression, a positive association between IL-1β and current major depression fell short of statistical significance (β = .234, p < .08, n = 72). An inverse association was found between IL-6 and CES-D somatic complaint scores (β = .534, p < .01, n = 48). No significant association was found between CRP and depression (p > .14). These results extend previous findings linking IL-1β to depression in cardiac patients, demonstrating this association for the first time in acute MI patients. They also suggest that IL-1β may contribute to depressive symptoms following MI, which would partially explain the heightened prevalence of depression in MI patients. The present study encourages further examination of the effects of psychotherapy, traditional anti-depressive medications, and known anti-inflammatory agents on cytokine-induced depression in cardiac patients.

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THE ASSOCIATION BETWEEN HISTORY OF DEPRESSION AND ANGIOGRAPHIC EXTENT OF CORONARY ARTERY DISEASE

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Coronary artery disease (CAD) patients with a history of depression are at increased risk for mortality, but the reasons for this remain unclear. We examined the relationship between self-reported history of depression and the extent of angiographic coronary disease as one possible mediator. Several mechanisms have been proposed to explain the increased mortality in depressed patients with CAD, including neuroendocrine, platelet and inflammatory processes, each of which lead to accelerated progression of atherosclerotic lesions in the depressed population. Thus, we hypothesized that patients with a positive history of depression would exhibit greater atherosclerotic burden when compared to patients with no depression history.

Participants included 93 post-Acute Coronary Syndrome patients whose history of depression was assessed using the Depression Interview Scale (DIS). Atherosclerotic burden was obtained from angiography.

There was no association between depression history and presence of Left Main, or 3 vessel CAD, or maximum percent stenosis (all p>0.20). However, number of diseased coronary vessels was significantly lower in patients with a depression history (p=0.05).

We conclude that contrary to our expectations, patients with depression history did not exhibit greater angiographic extent of CAD. Indeed they had fewer significantly diseased vessels. Several previous studies have shown that various severity markers of atherosclerotic burden are not associated with current depression. We discuss the implications these results have on the pathophysiological theories underlying higher rates of mortality in depressed CAD patients.

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PSYCHOSOCIAL FACTORS AND NEUROENDOCRINE ACTIVITY FOLLOWING A CARDIAC EVENT

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Positive mood can serve to buffer against depression and stress reactivity, known risk factors for cardiovascular disease and mortality. This investigation examined the relationships among positive mood, depression, cortisol, dehydroepiandrosterone (DHEA), and cortisol/DHEA ratios in a cardiac population. DHEA is an adrenal steroid proposed to be protective against cortisol’s harmful effects, while high cortisol/DHEA ratios are considered biomarkers of stress and illness. Thirty-six men and women ages 44-86 were enrolled within six months of suffering a cardiac event. Salivary cortisol and DHEA levels, at waking and 12 hours later, were collected and averaged across two consecutive days. Participants self-reported depression (CES-D) and positive mood [The Positive States of Mind Scale (PSOM)]. Controlling for age and gender, inverse relationships were observed in the expected direction between PSOM and cortisol (r=-.32,p=.068) and cortisol/DHEA ratios (r=.27,p=.128). In particular, Restful Repose of PSOM correlated with cortisol (r=.395,p<.05) while Sharing (r=.34,p<.05) correlated with cortisol/DHEA ratios. CES-D inversely correlated with PSOM (r=-.62,p<.001) and a positive relationship was observed with cortisol/DHEA ratios (r=.40,p=.067). Data from this preliminary investigation suggest that positive mood following a cardiac event is associated with lower cortisol and cortisol/DHEA ratios, while depression is associated with higher cortisol/DHEA ratios. This study is among the first to demonstrate a relationship between positive mood and neuroendocrine activity in a cardiac population.

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CENTRAL ADIPOSY AND CARDIOVASCULAR RESPONSE TO STRESS IN HEALTHY YOUNG MEN AND WOMEN

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Obesity is an increasing problem for most western societies. Central adiposity in particular has been linked to cardiovascular disease and hypothalamic-pituitary-adrenocortical disturbance; however its association with other physiological processes is less clear. We predicted that central adiposity as indexed by waist/hip ratio would be related to cardiovascular response to stress. It was also predicted that the effect of central adiposity on cardiovascular reactivity would be independent of general body mass. Two standardised behavioral tasks were administered to 10 male and 24 female normotensive volunteers (mean age 21.71yrs). Blood pressure and heart rate were measured continuously before, during and up to 90 minutes after testing. Multiple linear regression analyses revealed that waist hip ratio in men was positively associated with greater diastolic blood pressure (B = 503.1, C.I. 295.9 to 706.7, p=.001), systolic blood pressure (B = 176.5, C.I. 19.5 to 333.6, p=.033) and heat rate (B = 166.9, C.I. 96 to 332.8, p=.049) reactivity to stress, after adjusting for baseline and body mass index. No associations were significant for women, and general adiposity (indexed by BMI) was unrelated to cardiovascular reactivity. The findings suggest that central adiposity in men may increase the risk of cardiovascular disease by enhancing cardiovascular response to stress.

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B-27

CARDIOVASCULAR STRESS TEST Reactivity IN DEPRESSED PATIENTS AT RISK FOR CVD

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Depressed patients have an increased risk for cardiovascular disease (CVD) and a worse prognosis following a CVD event. To explore possible mechanisms accounting for this phenomenon, 20 non-depressed patients and 48 depressed patients, age > 55 with high CVD risk but no manifest disease underwent a psychological stress test involving a speech and math stressor. Depressed subjects exhibited significantly increased heart rate (group x time ANOVA: F = 2.5, P = .03), decreased systolic blood pressure (group x time ANOVA: F = 3.2, P = .01) and increased rate x pressure product (group x time ANOVA: F = 3.0, p = .01) during the stressors. There were no significant group x time differences in diastolic blood pressure although women had significantly lower blood pressures than did men (no other gender differences were significant). There were no significant group, time or group x time interactions for high frequency heart rate spectrum, baroreflex activity, presystolic ejection period, systemic vascular resistance. The group ANOVA for respiratory sinus arrhythmia (RSA) were F = 3.79, p = 0.056 for depressed subjects compared to non-depressed patients. Conclusions: Depressed subjects at risk for CVD have higher heart rate but lower systolic blood pressure reactivity to stress than do non-depressed, age matched subjects. These differences are not likely to account for the increased CVD risk found in depressed subjects. RSA values were lower in depressed subjects as has been reported by other authors.

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RUMINATION ABOUT AN ANGER RECALL TASK IS RELATED TO INCREASED CARDIOVASCULAR REACTIVITY AND DELAYED RECOVERY

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Studies have suggested that rumination is associated with elevated blood pressure and delayed recovery from anger-provoking situations. The aim of the current study was to investigate whether cardiovascular reactivity (CVR) and recovery were associated with rumination about an anger-provoking laboratory stressor. Participants were 68 normotensive students and staff members (mean age=34.2; 58 females, 10 males; 66.2% Caucasian, 16.2% Asian, 8.8% African American, 5.9% Hispanic, and 3% other) of a New York City medical center. Blood pressure and heart rate were measured at 2-minute intervals during a 10-minute baseline period and a 20-minute recovery period, and at 1-minute intervals during a 4-minute anger recall task and a 4-minute serial subtraction task without harassment. Following the recovery period, participants completed a modified version of the Anger Rumination Scale, which assessed rumination about the anger recall task during recovery. Elevated diastolic blood pressure and heart rate responses to the anger recall task were predictive of higher levels of rumination during the recovery period (p<.05). Rumination during recovery was also associated with delayed heart rate recovery from the anger recall task (p<.05). Reactivity during the serial subtraction task was not related to rumination. Results suggest that rumination about an anger-provoking situation is related to increased CVR and delayed recovery following provocation.

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ASSOCIATION BETWEEN FRIENDLINESS AND CARDIOVASCULAR Reactivity DURING A SOCIAL AND A NON-SOCIAL STRESSOR

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Research has suggested that hostility is associated with increased cardiovascular reactivity (CVR), particularly in response to social stressors. Hostility and friendliness have been hypothesized to lie on opposite sides of the same continuum. However, few studies to date have directly explored the relationship between friendliness and CVR. The aim of the current study was to investigate the effects of friendliness on CVR in response to a social and a non-social laboratory stressor. Participants were 52 normotensive students and staff members (mean age=35.1 years; 48 females, 4 males; 65.4% Caucasian, 13.5% Asian, 11.5% African American, 7.7% Hispanic) of a medical center located in New York City. Friendliness was measured via the SACRAL Friendliness-Unfriendliness Scale (alpha coefficient in current study=.78). Blood pressure was measured at 2-minute intervals during a 10-minute baseline period and a 20-minute recovery period, and at 1-minute intervals during a 4-minute anger recall task, a 4-minute serial subtraction task without harassment. Overall friendliness scores were predictive of lower systolic blood pressure change scores from baseline to the anger recall task period (p<.05). There was no relationship between overall friendliness and CVR during the serial subtraction task. Participants were 52 normotensive students and staff members (mean age=35.1 years; 48 females, 4 males; 65.4% Caucasian, 13.5% Asian, 11.5% African American, 7.7% Hispanic) of a medical center located in New York City. Friendliness was measured via the SACRAL Friendliness-Unfriendliness Scale (alpha coefficient in current study=.78). Blood pressure was measured at 2-minute intervals during a 10-minute baseline period and a 20-minute recovery period, and at 1-minute intervals during a 4-minute anger recall task, a 4-minute serial subtraction task without harassment. Overall friendliness scores were predictive of lower systolic blood pressure change scores from baseline to the anger recall task period (p<.05). There was no relationship between overall friendliness and CVR during the serial subtraction task. Results provide evidence for the existence of a friendliness versus hostility trait axis by suggesting that friendliness has an inverse relationship with CVR during social stressors, in contrast to hostility, which has been shown to be positively correlated with CVR.

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FITNESS AFFECTS DEMARGINATION OF LYMPHOCYTE BUT NOT MONOCYTE CELLULAR ADHESION MOLECULE (CAM) EXPRESSION IN RESPONSE TO EXERCISE
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Although leukocytosis in response to exercise is well documented, it is unclear how cardiovascular fitness influences this phenomenon. We examined the effects of moderate exercise on the redistribution of lymphocyte and monocyte subsets and their expression of CAMs (via flow cytometry) in low vs. high physically fit individuals. Blood was drawn prior to and following a 20-min treadmill exercise @ 65-70% peak oxygen consumption (V02peak) in 26 healthy individuals (38±9 years). Physical fitness was assessed by peak oxygen consumption during a separate treadmill test.

As expected, exercise led to a significant increase in circulating lymphocytes and monocytes (p<0.01). Physically fit individuals showed attenuated exercise responses in numbers of lymphocyte subsets, including CD4+, CD8+, memory CD4+, and naive CD4+ and CD8+ cells. In addition, exercise-induced changes in lymphocyte CAMs CD62L and CD11a were attenuated in fit compared to non-fit individuals (p<0.05). In contrast, the redistribution of monocyte subsets CD14+CD16+ and CD14+CD16+ did not differ between fit and unfit individuals, nor did monocyte expression of CAMs CD62L, CD11b and CD64 or HLA-DR differ between fitness levels. In addition, although the density of monocyte chemokine receptors CCR5 and CXCR2 was decreased in response to exercise (p<0.05), the effect was not different between fit and unfit individuals.

The findings are striking because they suggest that physical fitness attenuates exercise-induced demargination of lymphocytes and their CAMs but not monocytes. Being physically fit might offset exaggerated lymphocyte responses to stressors. The potential clinical implications on monocyte-mediated inflammation merits further examination.

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GENDER AND OBESITY MODULATE ASSOCIATION BETWEEN ADRB2 POLYMORPHISM AND HEMODYNAMIC REACTIVITY TO BEHAVIORAL STRESS
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Objective: Catecholamines act at beta-2 adrenoceptors (ADRB2) to mediate peripheral vasodilation and mobilize fat stores. Increased risk for essential hypertension and obesity has been associated with alterations in the ADRB2 coding region. However, polymorphisms in the ADRB2 promoter region have not been closely examined. The objective of this study was to determine the impact of an ADRB2 promoter polymorphism (G-654A) on hemodynamic reactivity and adiposity-related parameters.
Methods: 245 African American and 273 European American young adults (18.5±2.7 yrs) participated in the study. Hemodynamic measurements (i.e., systolic/diastolic BP, total peripheral resistance [TPR]) were completed at rest and during a 10 minute video game challenge. Statistical models were built including terms for main effects of genotype, gender, ethnicity and interaction terms involving ADRB2 -654 carrier status. When testing hemodynamic parameters, obesity status was included as a main/interactive effect.
Results: Significant interactions involving gender and carrier status were observed for hemodynamic reactivity, such that male carriers of the -654 A-allele exhibited greater SBP, DBP and TPR reactivity (p<0.004) compared to male non-carriers and females. A gene-by-obesity status interaction found that obese carriers demonstrated lower TPR reactivity (p<0.04) compared to non-obese carriers and non-carriers. When adiposity-related terms (i.e., waist-to-hip ratio, body mass index, obesity status) were tested as dependent variables, no significant results involving carrier status were found.
Conclusion: An ADRB2 promoter polymorphism is associated with altered hemodynamics during stress, particularly in males and obese individuals. Further work is required to determine ADRB2 G-654A functionality and to identify additional polymorphisms in linkage disequilibrium with G-654A.
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B-32
SHORT-TERM AUTONOMIC AND CARDIOVASCULAR EFFECTS OF MINDFULNESS MEDITATION
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Mindfulness meditation (MM) is a stress reduction technique used increasingly in medical settings, although it is not clear if it produces any larger or different physiological changes than those produced by other relaxing activities. Two studies (total N = 60) of healthy young adults examined the short-term autonomic and cardiovascular effects of MM. In Study 1, 32 inexperienced meditators were randomly assigned to either a MM, a progressive muscular relaxation (PMR), or a wait-list control group. Each participated in two identical laboratory sessions four weeks apart. In both sessions, people practiced MM and PMR for 20 minutes while listening to audiotapes describing the procedures. Wait list control subjects sat quietly for 20 minutes. There were no differences in heart rate or blood pressure responses to the three activities, but MM produced significantly larger increases in cardiac respiratory sinus arrhythmia (RSA) in both sessions, suggesting larger increases in cardiac vagal activity. A wider array of physiological measures was obtained in Study 2 via impedance cardiography. The 28 subjects also served as their own controls by participating in two sessions in which they listened to the MM body scan audiotape or an audio version of a Harry Potter (HP) novel in counterbalanced order. MM produced a significantly larger increase in RSA than HP, although this effect was limited to males. In contrast, women displayed a larger decrease in diastolic blood pressure during MM than HP. These results indicate both similarities and differences in the physiological effects of MM compared to other relaxing activities.
Supported by a grant from the Heart and Stroke Foundation of Quebec.
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JOHN HENRYISM AND NICOTINE METABOLISM IN AFRICAN AMERICAN FEMALE SMOKERS
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It is widely acknowledged that individuals smoke to cope with stress and several studies have demonstrated an association between coping, SES, and smoking among African American female smokers. While it is documented that an individual's coping style influences physiological processes, such as immune functioning and blood pressure, no research has explored the influence of coping on nicotine metabolism among African American women. The construct of John Henryism provides a means to examine the combined influence of coping and SES on physiological processes among African Americans. This study explored the association between active coping (assessed by the John Henry Scale for Active Coping [JHAC12]) and education on cotinine among 46 African American females. Average age was 39 years, while average age of smoking initiation was 19 years. Approximately 43% of had a high school diploma/equivalent or less, and the majority (69%) earned less than $25,000/yr. Seventy-six percent smoked menthol cigarettes, and 48% report TTF cigarette of the day within 30 minutes of awakening. Average CO was 9.6 and average cotinine was 60.8. A multiple regression approach to the general linear model examined the combined influence of active coping and education on cotinine. The interaction term of education x John Henry active coping was significant (p<0.05). Specifically, individuals with higher levels of education who endorsed lower levels of active coping had the highest plasma cotinine levels. This novel finding provides evidence that John Henryism may influence nicotine metabolism. This finding may inform interventionists who incorporate social and ethno-culturally relevant coping strategies into their smoking cessation programs for African American female smokers.
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4-DAY SELF-SELECTED SODIUM CONTROLLED DIET LOWERS SODIUM EXCRETION IN ADOLESCENTS PRIOR TO A COMPETITIVE STRESS PROTOCOL

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The rate of sodium (Na) excretion (U\textsubscript{Na}V) is used to examine differences in blood pressure regulation during and following stress. However, U\textsubscript{Na}V varies with dietary Na. To bring subjects into similar levels of Na balance, adolescents ate a self-selected Na controlled diet for four days prior to evaluating their hemodynamic responses to competitive stress. Thirty-eight African American and 41 white adolescents, aged 15-18 yr old selected foods from a wide range of menu items. Na contained in the foods they chose was limited to 4000 ± 200 mg/day. Foods were provided daily. Overnight urine collections were returned for each diet day. Repeated measures analysis of variance tested the effect of diet day (1–4) on overnight U\textsubscript{Na}V (mEq/hr), Na (mmol), and urine volume (ml). U\textsubscript{Na}V for Day 4 (1.9 mEq/hr) was statistically lower (F=26.5, 78, P<0.0001) than the Days 1-3 (6.6, 6.0, and 5.6 mEq/hr) and there was an 8-fold reduction in U\textsubscript{Na}V variance from Day 1 to Day 4 (F=8.34, 78, P<0.001). Paralleling the changes in U\textsubscript{Na}V, Day 4 (32 mmol) was statistically lower (F=208.4, 78, P<0.0001) than Days 1-3 (119, 110, and 111 mmol). Urine volume remained constant across the four days (F=2.24, 234, P=0.62). This protocol provided a sufficient level of dietary control while offering adolescents the flexibility to choose the foods and timing of their meals. Although not designed to be a low sodium diet, interest was the finding that this self-selected diet achieved substantial reductions in U\textsubscript{Na}V.

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B-35 Meritorious Student Poster

PARTICIPATION AND WITHDRAW RATES IN A TRANSLATIONAL RESEARCH PROJECT: THE Active for Life® PILOT YEAR

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Understanding program participation is critical for developing retention strategies for program implementation. Active for Life (AFL) was established to learn how to deliver, sustain, and evaluate evidence-based programs through community organizations. Nine community grantees were selected to implement either Active Choices (AC), a telephone-based program (Stanford University) or Active Living Every Day (ALED), a group-based program (The Cooper Institute and Human Kinetics). Both programs focus on teaching older adults the skills needed to increase lifestyle physical activity (PA).

This presentation describes pilot year participation and withdrawal rates for the two AFL programs. Frequencies of program session participation (i.e., completed calls for AC and class attendance for ALED) were used to evaluate this trend.

Participants (N=857) averaged 68±9 years of age, with 81% women, 63% Caucasian, and 30% African American. Participants who started and were scheduled to complete the program within the pilot year (N=369) were included in this analysis. Eight percent of AC and 12% of ALED participants who began the program withdrew. ALED class attendance averaged 70% over the 20 weeks. The greatest decline occurred through week 7, where attendance rates dropped to 68% and remained fairly level until week 20 (60–73%). Percent of AC participants receiving calls 1-8 were 85%, 87%, 73%, 73%, 73%, 60%, 60%, and 58% respectively. These findings support the need to implement retention strategies during the first two months of the program to prevent or lessen declines in program participation.

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TESTING A CONSULTATION MODEL OF SUPPORT IN GRIN PRACTICES

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Background: Primary care practices often have many barriers to implementing health behavior interventions with their patients. Identification, assessment, assistance and referral is documented to be low. Research conducted by Goodwin et al (2001) found that nurse facilitators were effective in encouraging practices to increase health behavior counseling.

Methods: Health care providers in 20 practices from two health systems participated in a project to determine if nurse consultants from the respective health systems could assist practices in identifying and implementing an action plan to systematically improve delivery of health behavior interventions in the areas of tobacco, diet, physical activity and risky drinking. A random selection of chronic disease and health maintenance charts were audited for each practice pre-post intervention to determine baseline and post-project levels of documentation of health behavior interventions. Baseline data was shared with each practice as a means to identify opportunities for improvement.

Results: Nurse consultants can be successfully used to assist practices with facilitating systematic practice changes around healthy behaviors. Results indicate that most practices are able to develop and implement an action plan for change. Chart audit results reveal that some practices made notable improvements in documentation of delivery of health behavior interventions. Factors influencing practice success include perceived importance of addressing healthy behaviors with patients, practice ability to institute a change process, and resources available to the practice.

Conclusion: Nurse consultant models have promise as a mechanism to assist practices overcome barriers to address health behaviors with their patients.

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B-37

A PRACTICAL APPLICATION OF BEHAVIOR CHANGE STRATEGIES FOR INDIVIDUALS WITH PRE-DIABETES

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The Diabetes Prevention Program (DPP) identified behavioral strategies that successfully delayed the onset of type 2 diabetes—unfortunately translating the DPP intervention, in total, may not be practical for typical health care settings. Our purpose is to describe the application of DPP principles to a single-behavior change session with participant initiated follow-up that would be practical within a clinical setting. A participatory team with research and clinical operations personnel reviewed the DPP findings and identified strategies associated with personal action planning and follow-up as the primary mechanism of behavior change. These strategies formed the basis of a diabetes prevention class that included participant initiated follow-up. Participants (n=153; 61% Women; Mean Age 62.2±11.3) completed a baseline and 1-month follow-up physical activity and eating behavior assessment. Using a Paired Samples T-Test, we found a significant increase in minutes of both moderate (p = 0.001, r = 0.20, CI: 0.13 – 0.27). Both participants and instructors rated the class as very satisfying and subsequently the program was taken to scale within the health care organization. Basing the development of a practical diabetes prevention program on the functioning principles identified by the DPP and organizational delivery context lead to widespread dissemination of a program that effectively increased physical activity and fruit & vegetable consumption in the short-term.

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INDIVIDUALIZING NICOTINE PATCH DOSE FOR ADDICTED SMOKERS

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FOR ADDICTED SMOKERS

Nicotine-replacement products are only moderately successful for aiding cessation of smoking. We undertook the first randomized, double-blind, clinical trial to test the hypothesis that smokers who replace 100% of their normal nicotine intake will be more likely to quit successfully. Adult smokers (N = 400), 51% females, mean age = 43 (SD=11), were randomly assigned to one of 5 nicotine-patch treatment conditions: 100% replacement, 50% replacement, 21 mg of nicotine, 42 mg, or placebo, and followed for 1 year. To reach target replacement levels (determined from 2 pre-quit saliva cotinine assessments), patch dose was adjusted if necessary during the first 2 weeks post-cessation for subjects assigned to 100% or 50% replacement. Survival analyses indicated that those assigned either to 100% replacement or to one of the other active-patch conditions did significantly better than those assigned to placebo patches at the end of treatment (35% quit vs. 12% quit: p = .0001). 100% replacement, however, was not significantly more efficacious than other patch treatments. We conclude that nicotine-patch treatment continues to be effective for middle-aged smokers, but that 100% replacement of nicotine via nicotine patches is not more effective than standard patch therapy for dependent smokers.

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B-39 Meritorious Student Poster

PROVIDERS PRACTICE PREVENTION – TREATING TOBACCO USE AND DEPENDENCE PROGRAM FOR PSYCHOLOGISTS: ONE-YEAR FOLLOW-UP DATA

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Research has shown that psychologists are less likely to intervene for tobacco use than other risky health behaviors. The United States Public Health Service Clinical Practice Guideline, Treating Tobacco Use and Dependence (TTUD), provides evidence-based recommendations for clinicians to promote tobacco cessation and reduce the burden of tobacco-related illness. The purpose of this study was to examine the impact of a continuing education program (Providers Practice Prevention: Treating Tobacco Use and Dependence) designed to promote use of effective tobacco cessation strategies. Data concerning participants’ tobacco cessation knowledge, attitudes, and practice was collected prior to, immediately after, and one year following participation in the intervention. Participants included 75 licensed Kentucky psychologists. Interestingly, results showed that 2 out of every 3 participants had heard previously heard of the TTUD guideline. Immediately after the intervention, participants expressed significantly more positive attitudes toward tobacco cessation, maintained more tobacco cessation knowledge, and reported greater intentions to integrate tobacco cessation strategies into their clinical practice. Although behavioral intentions reported immediately following the intervention did not completely translate into behavior change, results showed significant increases in the use of tobacco cessation strategies compared to baseline. Overall, the program appeared to promote the integration of the TTUD recommendations into the clinical practice of participating psychologists. To enhance the effects of future interventions, researchers/educators might consider incorporating follow-up information to help clinicians maintain their initial motivation and knowledge, while expanding their skills in treating tobacco dependence.

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B-40 BLOOD DONOR RETURN FOLLOWING TREATMENT WITH APPLIED TENSION

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While adequate to meet current needs, the North American blood supply has become more tenuous in recent years for a variety of reasons. One of the reasons is that biofeedback provided in typical clinical settings may yield results comparable to stringent inclusion criteria and requirements to accept random assignment. Little is known about outcomes in nonresearch clinical settings that treat a wider range of patients (e.g., greater severity of incontinence, medical comorbidities, lower motivation to participate in research). Clinical effectiveness studies are needed to determine whether results in typical clinical practices are similar to those found in tightly controlled settings. The present study is a clinical replication series of the effectiveness of EMG biofeedback treatment for fecal incontinence administered in a nonresearch clinical setting. Seventeen participants (94% female) who received biofeedback treatment for fecal incontinence were assessed through retrospective records reviews and prospective clinical phone interviews. The average age was 53 (SD=11.6) with 65% Caucasian, 12% African-American, 12% Hispanic, and 12% Native American. Seventy-one percent (n = 12) showed clinical improvement (i.e., decrease in frequency of incontinence by at least 75%). Twenty-four percent (n = 4) experienced complete elimination of incontinence. Across all subjects, frequency of incontinence decreased from an average of 34.9 (SD=11.9) to 7.4 (SD=16.6) episodes per month. Results suggest that biofeedback provided in typical clinical settings may yield results comparable to those found in more tightly controlled research settings.

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B-41 BIOFEEDBACK FOR FECAL INCONTINENCE: A CLINICAL REPLICATION SERIES

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Several randomized trials of EMG biofeedback for fecal incontinence have suggested that biofeedback may be a treatment of choice, with 50-78% of patients improving. However, up to 75% of participants have been excluded in some trials due to stringent inclusion criteria and requirements to accept random assignment. Little is known about outcomes in nonresearch clinical settings that treat a wider range of patients (e.g., greater severity of incontinence, medical comorbidities, lower motivation to participate in research). Clinical effectiveness studies are needed to determine whether results in typical clinical practices are similar to those found in tightly controlled settings. The present study is a clinical replication series of the effectiveness of EMG biofeedback treatment for fecal incontinence administered in a nonresearch clinical setting. Seventeen participants (94% female) who received biofeedback treatment for fecal incontinence were assessed through retrospective records reviews and prospective clinical phone interviews. The average age was 53 (SD=11.6) with 65% Caucasian, 12% African-American, 12% Hispanic, and 12% Native American. Seventy-one percent (n = 12) showed clinically significant improvement (i.e., decrease in frequency of incontinence by at least 75%). Twenty-four percent (n = 4) experienced complete elimination of incontinence. Across all subjects, frequency of incontinence decreased from an average of 34.9 (SD=11.9) to 7.4 (SD=16.6) episodes per month. Results suggest that biofeedback provided in typical clinical settings may yield results comparable to those found in more tightly controlled research settings.

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A META-ANALYTIC REVIEW OF PROPHYLACTIC PHARMACOLOGICAL AND BEHAVIORAL TREATMENTS FOR MIGRAINE HEADACHE

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Recurrent migraine headache is a disabling syndrome for millions of people. Prophylactic pharmacological and behavioral treatments have been shown to be effective. Most primary research, however, incorporated either a pharmacological or behavioral intervention. Similarly, reviews focused on one or the other. The current quantitative review synthesizes the literature pertaining to prominent pharmacological and behavioral prophylactics for migraine. Specifically, one drug (with the strongest research base) from each of three classes of medications was chosen as the study drug for that area. The classes and medications were: (a) beta-adrenergic blockers (propranolol), (b) calcium channel blockers (flunarizine), and (c) anticonvulsants (divalprox sodium). Three behavioral interventions (thermal biofeedback, relaxation, combination therapies) were included. After applying inclusion and exclusion criteria, 82 studies published between 1970 and 2003 were analyzed. Effect sizes for measures of frequency of headache were calculated using the standardized mean difference (d) or when studies reported only binary data (i.e., responders vs. nonresponders), the natural logarithm of the odds ratio [ln(OR)]. Calculations for continuous outcomes ranged from $d = .60$ (thermal biofeedback) to $d = .75$ (relaxation) with propranolol and flunarizine producing identical $d = .68$ effects. Treatments did not differ from each other. Binary effects ranged from ln(OR) = 1.49 (flunarizine) to ln(OR) = 1.65 (divalprox sodium). Again these effects did not differ. Behavioral treatments produced longer lasting effects but results from behavioral studies were more susceptible to file drawer phenomena than were pharmacological findings. Since treatments produced similar outcomes, factors such as presence of comorbid disorders, cost, compliance, and patient preference should guide treatment decisions.

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PHYSICIANS INFLUENCE ON PARENTAL INVOLVEMENT IN DIABETES CARE

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We evaluated whether physicians alter parental involvement in children’s type 1 diabetes management during adolescence. Parental involvement declines during adolescence contributing to poorer management, but may need to change to support the adolescent’s developing autonomy. Appraisals of parents as controlling are associated with poorer adherence among older adolescents. Children with type 1 diabetes ($n=32$; 10-15 year olds, diabetes duration $>1$ year) reported on mother’s involvement the week prior to a routine medical checkup. Children, mothers, and physicians reported physician’s messages regarding maternal involvement (e.g., mother take charge, act as coach, be supportive) during a clinic visit. One week later, children reported on mother’s involvement in the time since the clinic visit. Physician recommendations were associated with changes in children’s reports of maternal involvement. Physicians’ messages about the benefit of involvement (e.g., higher self efficacy, children taking responsibility) were associated with changes in children’s reports of maternal involvement the week prior to the week after the clinic visit. Particularly increasing children’s appraisals of support and decreasing appraisals of control. Data suggest physicians may be particularly important for disrupting negative transactions related to maternal involvement and control in adolescent diabetes.

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CHILD FEEDING STRATEGIES: DO PARENTS KNOW WHAT WORKS?

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The modern child’s diet falls well short of recommendations, typically being high in fat, sugar and salt, and low in fruit, vegetables and fiber. Behavioral research has identified a number of parenting feeding strategies that are associated with healthier eating habits in children, although it is unclear whether these findings have been adequately conveyed to parents themselves.

In order to investigate lay beliefs and practices with respect to child feeding, 576 parents of 2-6 year-old children were asked to rate the effectiveness of 16 common child feeding strategies to state whether they regularly employed such techniques. Parents reported the frequent use of encouragement and praise for eating, and most believed these to be effective, which is entirely consistent with the recommendations of scientific research. However, a number of authoritarian and highly controlling practices (such as forbidding the child to leave the table until s/he has cleaned the plate or offering sweets as a reward for eating) were also widely endorsed despite empirical evidence of their detrimental effects. Conversely, less than 5% of our sample used the technique of “mere exposure” (providing regular tasting opportunities) despite repeated demonstrations of its efficacy in the scientific literature.

A gap remains between the growing knowledge of behavioral scientists working in the area of child feeding and parents charged with the difficult task of encouraging their children to consume a nutritious and balanced diet. Better dissemination of research findings in the future could make parents’ tasks easier and have a major impact on children’s long-term health.

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DEVELOPMENT AND VALIDATION OF TRANSTHEORETICAL MODEL VARIABLES APPLIED TO BULLYING PREVENTION AMONG ELEMENTARY SCHOOL STUDENTS

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Although often thought of as a harmless part of child development, the long and short-term mental, emotional and physical consequences of bullying can be severe. The purpose of this study was to develop measures of Transtheoretical Model (TTM) constructs for increasing respect as a means of preventing bullying. A total of 912 elementary school students completed a paper/pencil survey (mean age 10; 13.5% Hispanic/Latino, 15.6% African American, 52.5% White; 52.6% male). The distribution across the stages of change for bullying was 20.9% Precontemplation, 18% Contemplation, 39.7% Preparation, 21.4% Action/Maintenance. Measures of decisional balance, self-efficacy and processes of change (POC) were developed using Principal Components Analysis and Confirmatory Factor Analysis each in one half of the sample. The best-fitting model for decisional balance was an uncorrelated 2 factor model representing pros (Alpha=.77) and cons (Alpha=.64). Chi-squared(19)=35.94, CFI=.935, AASR=.041. A 6 factor hierarchical model (3-stems per factor) indicated for the POC, Chi-squared(128)=288.75, CFI=.947, AASR=.03. The internal consistency for process subscales ranged from .59 to .75. A one factor model was retained for self-efficacy (Alpha=.75), Chi-squared(9)=11.86, CFI=.984, AASR=.029. MANOVAs and follow-up ANOVAs indicated that the pros and cons (eta-squared=.034), POC(eta-squared=.041), and self-efficacy (eta-squared=.049) varied significantly across the stages (p<.05). All constructs differed across the stages in the expected direction. The results support the validity of these measures which will be used as the basis for innovative TTM-based interventions for elementary school students to prevent bullying.

Developed in partnership with the Channing Bete Company.

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AN INVESTIGATION OF FACTORS RELATED TO ADOLESCENT BODY MASS INDEX SCORES

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Obesity among adolescents has become alarmingly prevalent. Research has indicated that serious health consequences result and are likely to prevail into adulthood. To effectively prevent obesity, it is important to understand the risk factors for increased BMI among adolescents. The present study investigated the influence of demographic variables and the adoption of three target behaviors (fruit and vegetable consumption and physical activity) on BMI. Data from 1459 participants were collected as part of a larger, nation-wide survey. Participants (69% White & 53% Female) had a mean age of 15.8 and a mean BMI of 22.8. Most participants (74%) were classified in the normal BMI range, with 15% classified as overweight, 9% at-risk for overweight, and 2% as underweight.

ANOVA tests demonstrated significant differences by gender (F(1,1337)=24.4, p<.0001), age (F(1,1344)=3.226, p=0.012), and grade (F(3,1339)=21.8, p=.0038). Boys reported a higher BMI (M=23.4) than girls (M=22.2). BMI also increased with age and grade level. Differences in BMI between those in pre-Action versus Action or Maintenance stages for each of the three behaviors were investigated. Stage of change for fruit and vegetable consumption and physical activity were unrelated to BMI. However, stage of change for television viewing was related (F(1,1190)=5.71, p=.005), with those in pre-Action stages having a higher BMI than those already limiting their television viewing. This research indicates that TV viewing and certain demographic characteristics are related to increased BMI among a large, national sample of adolescents. This project was conducted in collaboration with Channing Bete Company, Inc.

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WEIGHT CONTROL BEHAVIORS IN ADOLESCENTS WHO HAVE SUCCESSFULLY LOST WEIGHT

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One in 4 US adolescents are considered overweight, and the rates are increasing. The purpose of this study was to compare diet, physical activity and weight control methods among adolescents who have lost weight (L), maintained weight (M), or gained weight (G) over 1-year in the 2001-2002 National Health and Nutrition Survey (NHANES). The study sample consisted of 837 adolescents (16-18 years; 49% female; 43% Mexican-American, 27% African-American, 20% Caucasian, 10% Other). The 3 groups were defined using age/gender corrected normalized scores for current weight and previous years weight, and cutpoints based on the distribution of the difference between the normalized scores were computed (L=14% males, 13% females; M=64% males, 63% females; G=22% males, 24% females). Analyses of variance showed that females who lost weight reported more hours of vigorous activity/day (means L=4.9; M=3.0; G=1.9; F=5.8, p=.02) and a trend toward fewer hours of television/day (means L=3.0; M=2.9; G=3.4; F=2.6, p<0.08). Boys who lost weight showed a trend toward more hours of vigorous activity/day (means L=9.7; M=7.1; G=6.2; F=2.4, p=.09). There were no significant differences between the 3 groups in males or females on diet. Females who lost weight reported fewer diet pills/ laxatives to lose weight (means L=0%; M=1%; G=7%; F=3.2, p=.04). Males who lost weight reported less meal skipping (means L=0%; M=5%; G=15%; F=3.1, p=.05). Results suggest that weight loss in teens is associated increased physical activity and less unhealthy weight control behaviors. This study has implications for designing interventions for weight control in adolescents.

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EXPERIMENTATION WITH SMOKING BEFORE AGE 11 IN NON-SMOKERS PREDICTS TAKE-UP OF SMOKING IN THE TEENAGE YEARS: EVIDENCE FOR A SLEEPER EFFECT?

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The aim is to determine whether having tried a cigarette by age 11 is associated with a greater risk of smoking in later adolescence, controlling for confounding variables. An ethnically and socio-economically diverse sample of 4319 11-12 year-old students participated in the HABITS study, a 5-year longitudinal study assessing the development of health behaviours. Students reported smoking status as: never smoked, tried smoking once, used to smoke, or currently smoke (sometimes smoke, smoke one or more times a week), at yearly assessments. Cotinine samples corrected misreporting. Additional control measures included ethnicity, SES, gender, friends and family smoking and psychological well-being.

Current smoking increased steadily, from 3% at age 11/12 to 31% at age 15/16. Trying smoking only once by age 11, was associated with an increased likelihood of becoming a current smoker in subsequent years (unadjusted odds ratios 7.5(CI=5.52-9.94), 2.8(CI=2.04-3.77), 2.8(CI=2.11-3.83), 1.5(CI=1.03-2.27)) at ages 12, 13, 14 and 15 respectively. Results were the same for either current smoking variable, and remained significant after controlling for socio-demographic variables. From a theoretical perspective, the results indicate that the process of smoking initiation can involve a protracted period of ‘dormant vulnerability’ following initial exposure, before social or other conditions trigger onset of a more stable behaviour pattern. From a policy perspective, a history of smoking, however minimal, may put young people at risk for becoming regular smokers. This group could benefit from targeted interventions.

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FOCUS GROUP EVALUATION OF ACCEPTABILITY OF A HIGH SCHOOL TOBACCO CONTROL PROGRAM

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Acadiana Coalition of Teens against Tobacco (ACTT) was a four-year public high school tobacco control program in south central Louisiana (10 intervention, 10 control schools). The purpose of this study was to determine program acceptability among 12th grade students after three-years of intervention. One focus group was conducted at each of seven intervention schools with a total of 47 students (24 males/23 females; 16 whites/31 blacks). Students at least 18 years old were randomly-selected from the 12th grade cohort in their final school semester. Data were obtained about program perceptions, activities and impact, and recommendations for improvement. Students had a clear understanding of the ACTT message, yet general perceptions were mixed. Non-smoking students did not see the program as relevant, but admitted awareness and knowledge about smoking consequences were increased. Students were enthusiastic about selected activities, but location and timing were not optimum for student participation. Students reported minimal impact mainly because the majority of focus group participants were non-smokers. Smoking students (n=60) indicated the program would not change their smoking behavior. Students recommended the use of more real-life presenters and examples, focusing on relevant effects of smoking, e.g. bad breath and impaired athletic performance, and starting earlier, e.g. middle school. When these post-intervention data were compared with previously collected formative data, similarities were found in positive student observations about media activities and health messages, and negative observations about personal relevance and impact. The use of focus groups, while not providing representative observations, can contribute to information about program acceptance and future program development.

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AFRICAN AMERICAN YOUTH PERSPECTIVES ON CARDIOVASCULAR DISEASE, FRUIT AND VEGETABLE CONSUMPTION, AND PHYSICAL ACTIVITY: FOCUS GROUP RESULTS

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Focus groups have become a mainstream approach to health promotion, with widely differing research populations. Focus groups yield important insight regarding the development of tailored interventions and prevention activities. The purpose of this study is to identify knowledge of and health behaviors related to Cardiovascular Diseases (CVD). Several focus group discussions were conducted with African American families living in the Metro-Atlanta area. These focus groups were a part of a larger family study where all family members were invited to participate. Separate focus groups were conducted with parents and children. In some cases, the focus groups with children were divided into two groups, if the age range was too wide. The current study describes four focus groups with a total of 26 children (ages 4-20 years). All group discussions were audio taped and professionally transcribed. Content analysis was performed to reveal themes related to CVD risk factors, health behaviors and prevention methods. Participants expressed a range of knowledge along with health promoting and health deteriorating behaviors related to CVD and its risk factors. A total of six predominant themes were revealed. The themes included (1) family health; (2) healthy and unhealthy dietary habits; (3) knowledge of CVD; (4) family and individual physical activity participation (5) lifestyle modification barriers; and (6) fruit and vegetable consumption. The focus groups revealed an opportunity for the use of theoretical models to increase CVD education and lifestyle modification in this population.

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USE OF NICOTINE REPLACEMENT THERAPY PRODUCTS AMONG ADOLESCENT SMOKERS

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Nicotine replacement therapy (NRT) products have not been tested on teens and are not officially recommended for use with teens. However, both the nicotine gum and the nicotine patch can be purchased over the counter, and teens can also obtain NRT through other channels. This study is an investigation of what happens when teens want to quit smoking and use NRT although usage is not recommended. Data collected from 13-17 year old callers to the California Smokers’ Helpline were analyzed for NRT usage and smoking/quitting behavior. From January 1996 to December 2000, 3512 teens were measured at baseline and follow-up. Of the sample, 15% reported having used the nicotine patch to help them quit, and 12% had reported using nicotine gum; overall, 23% of teens reported NRT use. Females (55%) were more likely to report using nicotine patch compared to males (45%) whereas males (51%) were slightly more likely to report use of the nicotine gum than females (49%). At the time of the last evaluation call, of the teens reporting using the patch since calling the Helpline, they reported obtaining them from family or friends (39%), bought them over the counter (30%), or through a doctor’s prescription (27%). Teens who reported NRT use (84%) since calling the Helpline were more likely to make a quit attempt than those who did not (68%). During the presentation, more outcome variables regarding quit attempts and abstinence rates will be discussed.

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EXAMINATION OF THEORY OF REASONED ACTION VARIABLES AMONG PRETEN African AMERICAN GIRLS

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The purposes of this study were to (1) describe sexual behavior of preteen African-American girls using the variables derived from the Theory of Reasoned Action (TRA), and (2) explore information mother shared with their daughters about sex. Baseline data from the "A Randomized Controlled Trial of the NIA Intervention (R01HD39757-01)" were used. African American girls (n=129) aged 11 to 14(mean age=12.2 ± 0.91) were recruited from three middle schools in a mid-sized northeastern city. The Treboux Premarital Attitude and Subjective Norm (mother, father, and peer) Scales, the Doswell-Braxter Intention of Sexual Behavior Scale and self-reported Sexual Behavior Scale were used to assess TRA variables. Descriptive statistics and Spearman Rho correlations were conducted. Around 88% of the sample reported they had not engaged in any type of intimate sexual behavior (i.e., French kissing, light/heavy petting, or sexual intercourse) in the past year. Seventy-five percent of girls reported their mothers shared with them about what is sex (to delay until being older or married, or practice safe sex). Girls were unsure about their attitude, peer norms, and intention to engage in early sexual behavior; yet, girls perceived disapprovals of their fathers and mothers regarding any type of intimate sexual behavior. Attitude was strongly correlated with intention (r=0.77) and sexual behavior (r=0.51). Peer norm was the most influential norm to intention to engage in sexual behavior (r=0.48) and self-reported sexual behavior(r=0.40). Intention was significantly correlated with sexual behavior (r=0.50). Future study needs to examine direct and indirect effects among the TRA variables.

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ADOLESCENT RESPONSES TO CIGARETTE ADVERTISING: INDIVIDUAL DIFFERENCES AND MECHANISMS OF ACTION
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Adolescent smoking is a significant public health concern. Despite progress being made on many fronts in tobacco control, cigarette advertising continues to reach and likely affect adolescents’ thoughts and feelings about smoking and their decisions to smoke. Little theory-driven information is available regarding the psychological mechanisms that mediate the effect of cigarette advertising on adolescent smoking. If such information were available, it could be harnessed to design interventions that target those mechanisms to reduce the likelihood of adolescent smoking.

This program of research has examined the developmental maturity of the self-concept as one possible mechanism that could mediate adolescent never smokers’ responses to cigarette advertising. Adolescents who are having the greatest difficulty defining themselves (i.e., deciding which “personality characteristics” they should adopt) are hypothesized to be more susceptible to cigarette advertising (which uses models who display many positive personality characteristics, e.g., independence, sociability, attractiveness) compared to adolescents who are having less difficulty with self-definition. Two studies have provided converging support for this hypothesis. Study 1 found that adolescents who had greater difficulty with self-definition indicated that cigarette advertisements were of greater importance to defining themselves compared to adolescents who had less difficulty with self-definition (p < .037), especially among adolescents younger than age 14 (p < .005). Study 2 found that adolescents who had more difficulty defining themselves had more positive evaluations of cigarette advertisements compared to adolescents who had less difficulty defining themselves (p < .01). These results provide the first evidence that a developmentally-relevant construct, the maturity of the self-concept, mediates adolescents’ responses to cigarette advertising.

Supported by DA12350 and CA100549
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SMOKING STATUS AND TRIGGERS IN A DIVERSE SAMPLE OF FEMALE SMOKERS AT RISK OF CERVICAL CANCER
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Cigarette smoking has been associated with an increased risk of developing cervical cancer, particularly for women with human papillomavirus (HPV). Smoking cessation may benefit women with HPV who are undergoing testing for cervical cancer at colposcopy clinics. We conducted interviews with colposcopy clinic patients to inform modifications to an effective smoking cessation program that has been tested in a predominantly Caucasian, middle class sample. Of the 31 women interviewed, 62% were Caucasian, 29% of whom self-identified as Latina/Hispanic, 29% African American, and 10% Native American. The majority were under the age of 30 (67.7%), unemployed (61.3%), never married (64.5%) and had a high school education or less (78%). On average, women smoked 12.8 cigs per day (SD = 10.7) for 10.6 years (SD = 7.8). For motivational readiness to quit smoking, 20.7% were in Precontemplation, 44.5% in Contemplation, and 34.5% in Preparing. The most commonly endorsed trigger for smoking was depression (100%) followed by stress (97%) and drinking alcohol (71%). Interestingly, this sample scored lower on a measure indicating likelihood of smoking to control weight (X = 1.6) in comparison to our previous samples and the literature (X = 2.3 - 2.6). In conclusion, this diverse sample of women indicated affective triggers to smoke rather than the weight related concerns that are common in Caucasian samples. These data will be used to inform the adaptations of our intervention.

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POSTCESSATION WEIGHT CONCERNS AND TREATMENT PREFERENCE AMONG WOMEN SMOKERS
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Weight concerns have been associated with poor cessation outcomes among women smokers, but the best way to manage these concerns is unclear. One treatment approach is to use cognitive behavioral strategies to reduce postcessation weight gain concern. A second approach is to enhance the social support of weight-concerned women during the cessation process. We sought to determine which of these approaches would be preferable to women smokers concerned about postcessation weight gain. After consenting to participate in a smoking cessation trial, detailed descriptions of the weight concerns and social support treatment approaches were presented. In addition to queries about demographic variables, smoking history, and psychosocial factors, the women completed two 4-item questionnaires measuring treatment preference. Responses to the four questions ranged from 1-10 with the higher numbers reflecting a greater preference for that approach. Participants were 284 women (12.1% Black, 87.9% White; mean age = 41.9±10.1 Body Mass Index = 26.9±5.3). Overall, women expressed moderate preference for both treatment approaches (M=7±1.4 for weight concerns and 7.7±1.5 for social support). Women were categorized into those who clearly preferred the weight concerns (WC; n=86) or social support (SS; n=198) approach. WC women reported gaining more weight in previous cessation attempts, [16.3 vs. 9.1 lb; F(1,133) = 6.8, p<.01] and were more concerned about post-cessation weight gain. F(1,162) = 8.5, p=.004. WC women had slightly higher BMI (ns), but were not more nicotine dependent than SS women. Although it is unclear how treatment preference will affect outcome, weight gained in prior cessation attempts appears to relate to women’s treatment preference.

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HOW DO SUCCESSFUL WEIGHT LOSS MAINTAINERS HANDLE HIGH-RISK PERIODS?
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Little is known about how successful weight loss maintainers deal with high-risk situations and whether they behave in ways similar to normal weight individuals with no history of obesity or must practice more extreme behaviors to accomplish their weight loss maintenance. The purpose of this study was to compare the behaviors of successful weight losers and normal weight controls before, during, and after the Christmas holiday. Participants were members of the National Weight Control Registry who had recently enrolled and completed a baseline assessment. Registry participants were asked to identify normal weight controls for participation. Registry participants (n=107) and controls (n=100) were similar in age (46.7 vs. 47.5 y) and gender (79.9 vs 74.0% female). Registry participants had a higher initial BMI than controls (0.5 vs 0.1 kg; p=0.0001); subsequent analyses controlled for BMI. Holiday weight gains were relatively minor in both successful weight losers and normal weight controls (0.5 vs 0.1 kg; p=.11). However, Registry participants reported making more specific pre-holiday plans to control their weight, eating, and exercise (p<.002), and greater practice of weight control behaviors, stimulus control techniques, dietary restraint, and exercise throughout the holidays (p<.001). They also reported greater weight concern, which increased over the holidays (p<.001). This study suggests that although weight gains are relatively minor in successful weight losers and normal weight controls over the holidays, successful weight losers work harder than normal weight individuals to manage their weight prior to and during high-risk periods.

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Efficacy of Taste-Based Goal Setting: Results of the Stanford Healthy Weight Project

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Once intervention class or staff contact is removed, obese adults often give up healthy eating habits and regain weight. Based on social comparison theory, we examined whether taste-based goal setting—which minimizes perceived deprivation by promoting taste and moderation—would sustain long-term reductions in saturated fat and body mass index (BMI). Overweight and obese sedentary adults (n=162, 70% women, 78% White, 51 ± 6.6 years, 11.3 ± 2.1 percent saturated fat, 30.8 ± 3.1 BMI) were randomized to Taste-Based Choices (taste-based goal setting + a standard 6-month behavioral weight-loss intervention), Smart Consumers (a standard 6-month intervention alone) or Community Access (access to commercial/community-based behavioral weight-loss programs) and followed over 18 months (96% retention).

Using simultaneous multiple regression, we examined a set of orthogonal contrasts (TBC and SC vs. CA; TBC vs. SC) on reductions in saturated fat (Block FFQ) and clinic-measured BMI. As hypothesized, men in TBC made greater reductions in saturated fat (~2%) than SC over the 18 months, p<0.03. Women in TBC had similar but clinically significant reductions in saturated fat (~1%) as SC, p<0.04. No overall BMI reductions were seen, participants who improved taste-based attitudes over the initial 6 months were more likely to lose at least 1 BMI unit over the 18 months than participants who did not initially improve these attitudes, 67% vs. 19%, p=0.001. Adding taste-based goal setting to standard behavioral components achieved similar or better results for long-term behavior change even when active intervention efforts were removed.

Supported by NHLBI R29-HL60154/5T32-HL07034.

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Intervention to Reduce Vaginal Douching Among Young Women: A Randomized Control Trial

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Vaginal douching has been associated with adverse reproductive health outcomes. Nonetheless, many American women douche, often initiating the behavior at a young age. The objective was to evaluate an intervention to reduce vaginal douching among adolescent and young women who report current douching. An RCT of 275 primarily African American adolescent and young adults aged 14 to 23 years seen at an adolescent clinic. All women participated in three, 15-minute client-centered interventions. The experimental group received interventions based on their individual stage of readiness for ceasing vaginal douching. The comparison condition emphasized nutrition. Primary outcome was douching cessation at the 12-month assessment; a secondary outcome was to ascertain progression through the stages of change. The results indicated that participants receiving the intervention were more likely to report not douching in the preceding 90 days at the time of the 6-month (30.9% vs. 42.1%; p = 0.02) and 12 month assessments (48.8% vs. 21.7%; p = 0.0003) as compared to the control condition. At baseline 89.9% of all women reported no intention to stop douching. By 12 months, more women in the in the intervention group progressed to the latter stages of change versus those in the comparison group (53.7% vs 28.2%; p = 0.0001). The overall conclusion is that stage-matched interventions can reduce douching among young women.

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TIMING OF DOUCHING AND STD INFECTION AMONG AFRICAN-AMERICAN STD CLINIC PATIENTS

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Although many medical professionals have deemed douching unnecessary and non-beneficial, and despite the fact that numerous adverse health events (including STD infection) have been linked to the behavior, many minority women continue to douche. A cross-sectional study of African-American female STD clinic patients (ages 17-45) was conducted to assess douching behavior and consider differences in STD outcomes based on timing of douching. Nearly half (46.1%) of the sample doused in the preceding two months; 34.7% were former douchers, and 19.2% never doused. When asked about specific times when they doused, most reported douching after menses (65.4%), when there was a need to feel fresh (42.2%), and after sex (26.6%). Very few women reported douching when there was itching (5.7%), during menses (3.3%), or “some other time” (4.8%). The majority (68.7%) self-reported having had an STD in the past, and at the time of the evaluation visit, 15.4% were infected with chlamydia (p<0.05) and 7.5% had gonorrhea. Women who doused during menses (AOR= 4.78; 95% CI=1.13-20.13) and to alleviate an itch (AOR=3.66; 95% CI=1.00-13.41) were more likely to have a current chlamydia infection. No statistically significant associations were found between douching frequency and STD infection. Douching persists among this cohort of high-risk African-American women. Although increased douching frequency has been linked to STD infection, other aspects of douching behavior should be considered, such as timing of douching, as a contributor to negative reproductive health outcomes.

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THE MOTHER BABY NUTRITION SUPPLEMENT PROGRAM (MBNS): CONNECTING HIGH-RISK MOTHERS TO PRE-AND POST- Natal Services Early in Pregnancy

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This study examined the effects of the MBNS public health initiative for low-income families on participation in pre- and post-natal programs in Newfoundland and Labrador. The main component of the MBNS is a monthly financial supplement to cover increased nutritional needs from confirmation of pregnancy through to the child’s first birthday. However, a telephone application procedure was designed to also provide a system for offering information and referrals to local services early in pregnancy. An extensive advertising campaign and a telephone registration is used to reach as many low-income families as possible—those least likely to use such services. Data was gathered on 2489 participants from government application and birth registry databases. Mothers were interviewed at approximately two months post-partum. Despite broad media promotion of the MBNS, informal community contacts appeared to play the most important role in getting the program known to pregnant women. Most reported learning of the program through family or neighbours. The telephone application procedure was viewed as user-friendly by participants, and was successful in registering the majority of eligible women. Approximately 65% accepted referrals to public health nurses and associated services. Of those who did not, 20% were either already receiving services or had during a previous pregnancy. Results indicate that this program is an effective and relatively low-cost method for connecting low-income women to pre- and post-natal services, very early in pregnancy.

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RURAL LOW-INCOME FAMILIES DURING PREGNANCY: WOMEN’S PERCEIVED STRESSORS AND HEALTH IMPLICATIONS

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While smoking cessation programs designed for pregnant women have been effective for some, many women continue smoking despite interventions. These women perceive more stress in their lives than those who quit. No reported smoking cessation programs have targeted pregnant women’s personal stressors, even though this appears to be a reason for smoking. The purpose of this study is to report baseline data regarding the stressors rural low-income pregnant women report. Pregnant women who smoke were recruited from 21 WIC clinics in rural Missouri counties to participate in a randomized controlled trial of smoking cessation. The baseline outcome measures include the Prenatal Psychosocial Profile (PPP), Mental Health Index –5, Abuse Assessment Screen and smoking cessation. The mean PPP stress score of 23.1 put these women at high risk for poor pregnancy outcomes. The cumulative risk factors in the mothers are: low socioeconomic status, stress, depression, use of tobacco, and IPV which puts them at high risk for poor pregnancy outcomes and places their infants at a high risk for developmental delays. Results from this study would be valuable to established prenatal smoking programs that have been ineffective with women who have higher levels of perceived stress.

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EFFICACY OF DUAL BEHAVIOR-FOCUSED, TTM-BASED MOTIVATIONAL INTERVENTION WITH TRANSITION ASSISTANCE TO PREVENT AN ALCOHOL-EXPOSED PREGNANCY (AEP) AFTER RELEASE FROM JAIL

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Preconception intervention with women who drink and do not use contraception consistently could help prevent fetal alcohol spectrum disorder. Our survey in a large urban jail found 21% of 18-44 year old inmates at risk of AEP. We conducted an RCT to test the efficacy of a motivational intervention with transition planning, and contraception services on time-line follow-back reported alcohol, sex, and contraception for 6 months after release—combined as risk of AEP (AEP-R). Inmates scheduled for release were screened for risky drinking and pregnancy risk before jail and not currently pregnant or planning pregnancy <6 months (217 eligible; 1 refusal). The majority were >25 years, high school graduates/GED, drug dependent before jail; 47% were white, 42% Black, 12% U.S. born Hispanics. Intervention participants (n=133) received 4 therapy sessions (based on motivational interviewing and the TTM’s processes of change)—2 in jail plus a resources-information group and 2 freeworld sessions plus birth control education-services. Follow-up time was grouped into 6 30-day blocks, coded for AEP-R (no days versus any day), and analysed with an offset variable modelling each woman’s opportunity/reincarceration time. AEP-R and contraception alone did not show an effect for study group, time, or time x group (general estimating equation data not shown). A significant main effect favoring the treatment group was found for risky drinking (Wald χ2(1)=8.17, p<.004), however. The alternative behavior approach to AEP-R reduction appears to have been affected by the limited contraception options available to high risk women.

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RURAL LOW-INCOME FAMILIES DURING PREGNANCY: EXPECTANT FATHERS’ HEALTH BEHAVIORS

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Pregnancy has been identified as a teachable moment; a time when women are receptive to health advice and take action to improve their own health and the health of their babies. The teachable moment of pregnancy may also extend to expectant fathers. However, the health risk behavior of men is rarely considered as part of prenatal care or in associated research. The purpose of our pilot study was to assess health risk behavior of expectant fathers. Our target population was rural low income families where women received prenatal care from a Medicaid health plan. Using a prenatal screening procedure and a telephone survey, 138 expectant fathers provided information about health behaviors (tobacco use, problem drinking, seat belt use, physical activity, body mass index, nutrition). We defined and classified health risk behaviors. Analyses found: 58% of men were current tobacco users (49.3% smokers, 8.8% smokeless tobacco); 30% had > 4 drinks/day in the past month; 49.2% use seat belts “about half the time” or less; 12.3% had very low physical activity levels; 95.7% eat < 5 fruit/vegetable servings per day; and 25.3% have a body mass index >30. Further, 51.5% of the men engage in three or more of the classified health risk behaviors. This sample of rural low income expectant fathers has higher levels of risk behaviors compared with national samples. Failure to address health risk behaviors of expectant fathers during prenatal care is a missed opportunity to improve paternal, maternal and family health.

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SLEEP, EXERCISE, AND MOOD IN CAREGIVING AND NON-CAREGIVING WOMEN

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This is the first American study to examine caregivers’ sleep collected via polysomnography (PSG). Nine caregiving women and a matching sample of 43 sleep-impaired non-caregivers completed three nights of in-home PSG and questionnaires assessing physical activity, mood, and perceived sleep quality. No significant differences in PSG variables were found; caregivers and non-caregivers appeared similar in sleep time, sleep latency, REM latency, and percentage of time asleep across the 5 sleep stages (p values > .05). Caregivers reported higher perceptions of sleep disturbances, but PSG showed the sleep-impaired non-caregivers had more arousals during the night (5.7 vs. 3.7 arousals per hour, p<.03). Caregivers reported more moderate intensity physical activity, primarily from household work (429 vs. 219 minutes of moderate activity per week, p<.03). Caregivers reported more depressive symptoms (CESD score 12.2 vs. 7.6, p<.01); however, they also reported less physical exhaustion and more positive engagement (i.e., feeling upbeat) on the Exercise-Induced Feeling Inventory. Among caregivers, physical activity was correlated with both positive and negative mood states (r > .78), but not sleep. Although the sample is small, it is comparable in size to other PSG studies, and the use of in-home PSG to capture caregiver sleep patterns is a significant advancement. The results suggest that caregivers’ sleep patterns appear similar to sleep-impaired adults in both sleep quantity and quality. Future directions include examining the influence of specific caregiving variables on sleep.

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PREDICTORS OF SMOKING CESSION IN OLDER SMOKERS

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The health consequences and medical costs associated with cigarette smoking have been well established (USDHHS, 2004). Due to these negative consequences considerable progress has been made in the development of cessation strategies, however; prevalence of smoking has not decreased substantially in recent years (CDC, 2000). One overlooked and understudied population in smoking reduction efforts has been the elderly, of which an estimated 10%, 65 and over continue to smoke (CDC, 2001). Researchers have extensively documented potential predictors of smoking cessation in the general population, however; the literature for predictors of smoking cessation in the elderly is scarce. This study examined the predictors of smoking cessation in people 60 years and older. In the parent study, 296 elderly smokers completed a smoking cessation regimen. At baseline, questionnaires were administered to the participants that assessed demographic information, smoking history, and physical and mental health. Overall results indicated that the number of years participants smoked was a significant predictor for 6-month point prevalence and 6-month continuous abstinence smoking cessation. The fewer number of years smoked the more likely the participants were to quit smoking. The significant predictors were that participants were more likely to quit if they did not work and if they had fewer past quit attempts. Because smoking is one of the few risk factors where positive health changes in both quality and longevity of life can accrue at any age, future research should focus on identifying the unique predictors of smoking cessation in the elderly.

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PHYSICAL ACTIVITY AND SLEEP IN OLDER ADULTS: THE ROUND THE CLOCK WELLNESS TRIAL

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Sleep complaints become increasingly prevalent as people age, yet few studies have systematically examined non-pharmacological enhancement of sleep quality among older adults. This study represents the first randomized trial evaluating increases in moderate-intensity physical activity on sleep architecture (using home polysomnography-PSG) and rated quality (Pittsburgh Sleep Quality Index [PSQI]) and 2-week sleep logs) in older adults complaining of poor sleep. 66 community-dwelling adults 55 years and older who were inactive and reported chronic insomnia were randomized to 12 months of moderate physical activity (walking, low-impact aerobics) or an attention-control group. Six-month home PSG indicated that exercisers fell asleep an average of 7 minutes sooner than controls (p<0.36), a difference maintained at 12 months. Twelve-month PSG indicated that exercisers spent a smaller proportion of sleep time in Stage 1 (p<0.02) and a greater proportion of time in Stage 2 (p<0.05) relative to controls. Exercisers also reported improvements in the PSQI global sleep quality score (p<0.37), as well as reductions in PSQI sleep disturbance and daytime dysfunction subscales at both 6 and 12 months (p values<0.05). Sleep logs indicated 12-month improvements in how rested participants felt and rated sleep latency in exercisers vs. controls (p values<0.02). No gender differences occurred. These results suggest that sustained increases in moderate physical activity can positively impact sleep architecture in ways similar to pharmacological sleep aids, and have a positive effect on perceived sleep quality. Physiological and psychosocial mediators of these relationships are being explored.

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SELF-EFFICACY AND IMPROVEMENTS IN MOBILITY PERFORMANCE FOLLOWING EXERCISE AND DIETARY WEIGHT LOSS INTERVENTIONS IN KNEE OSTEOARTHRITIS PATIENTS

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Recent evidence from the ADAPT trial demonstrates that combining exercise and dietary weight loss (EX+DWL) interventions results in superior improvements in performance measures of mobility and pain among overweight or obese older adults with knee osteoarthritis (OA). Mobility-related self-efficacy (SE) has been found to mediate improvements in physical function following exercise interventions. However, the effects of EX+DWL interventions on the relationship of SE and pain with improvements in performance measures of mobility accompanying this approach to treatment have yet to be established. Therefore, the purpose of this study was to examine changes in mobility-related SE following EX+DWL interventions and determine if SE and pain mediate improvements in mobility performance among knee OA patients. A total of 316 OA patients completed assessments of stair-climb and 6-min walk performance, task-specific SE, and pain at baseline, 6-months, and 18-months during the ADAPT trial. ANCOVA analyses demonstrated that EX+DWL produced superior improvements in stair-climb SE (p<0.02) and both EX+DWL and EX resulted in more favorable changes in walking SE (p<0.001) relative to the control group. Results of mediation analyses revealed that SE and pain were partial mediators of change in stair-climb performance only. These findings demonstrate that EX+DWL elicited significant improvements in SE. These results also suggest that SE beliefs and pain are particularly important in determining the effects of EX+DWL upon the performance of challenging mobility tasks among overweight or obese knee OA patients.

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PREVALENCE OF FEAR OF FALLING IN A VETERAN OUTPATIENT POPULATION

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Fear of falling (FOF) has been shown to be a significant, independent risk factor for falls. However, the prevalence and correlates of FOF are not known for the veteran outpatient population. This study surveyed 126 community dwelling veterans (96% male, 65% married, 76% Caucasian, Mages = 76) presenting for usual care to a geriatric primary care clinic. Participants completed the Falls Efficacy Scale, Perceived Control Over Falling, and Perceived Ability to Manage Falls Questionnaires. Ten percent reported thinking about falling at least daily, 32.5% occasionally, and 50% never. Age (p<0.02) and having fallen within the past year (p<0.001) were related to frequency of thoughts about falling. FOF was significantly related perceived control to prevent falls (p<0.01) and perceived ability to manage falls (p<0.05). Participants who had fallen in the past year (32%) reported significantly greater FOF during activities of daily living (p<.001), lower perceived control over falling (p<.01), and lower perceived ability to manage falls (p<.001). Amount of time spent thinking about falling was significantly related to FOF (p<0.001), perceived control over falls (p<.01) and perceived ability to manage falls (p<.001). These results suggest that prevalence of FOF in veteran outpatients is comparable to largely female community samples studied previously and is highly linked to veterans' self-efficacy to control and manage falls. Thus, including FOF as part of fall risk assessment in primary care behavioral medicine interventions may enhance the care and health of our veterans.

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GENDER, AGE, AND COHABITATION MODERATE THE RELATIONSHIP BETWEEN MOBILITY AND DEPRESSIVE SYMPTOMS

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Several studies have demonstrated loss of mobility as a risk factor for depressive symptoms. This study examined moderating effects of gender, age, and cohabitation on this relationship between mobility loss and depression in 258 primary care patients. Multiple linear regression predicted number of depressive symptoms using age, gender, cohabitation (marriage included), and mobility (ability to independently drive or use public transportation) as predictors along with their orthogonalized interactions tested with lower-order terms included. Loss of mobility was strongly related to an increase in depressive symptoms, $t=4.09, p<.0005$. A significant interaction between gender and mobility, $t=2.27, p=.024$, revealed that this effect was stronger in females, $r=431, p<.0005$ than in males, $r=105, p=.309$, but the moderating effect of gender was dependent on age, as shown by a three-way interaction, $t=1.98, p=.056$, indicating that the gender differences were diminished among younger people. Living without a partner was also related to increased depressive symptoms, $t=2.52, p=.012$, and this effect was also moderated by a three-way interaction with sex and age, $t=2.10, p=.036$, with older males most affected. Having a partner did not diminish the effects mobility loss, $t=.53, p=.595$. A possible explanation for these results may be related to greater importance of social interaction for older females, and perhaps physicians should be even more vigilant in looking for signs of serious depression in response to loss of mobility for this group.

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PREDICTORS OF CANCER SCREENING PRACTICES AMONG ASIAN INDIAN WOMEN

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Purpose: To determine age-specific cancer screening practices i.e., self-breast exam (SBE), clinical breast exam (CBE), mammogram, and Papsmear among Asian Indian women living in the United States. Predictor variables included socio-demographic factors, health care factors, cancer beliefs, acculturation, and family history of cancer.

Sample: A random sample of 424 Asian Indian women in 5 major U.S. cities (Houston, Phoenix, Washington, D.C., San Diego, and Boston) completed a telephone interview (response rate 47%). The mean age of the respondents was 43.8 years (SD±11.2) with an average 17 years (SD±10.9) of residence in the U.S.

Analysis and Results: The majority were college educated (75%), had health insurance (87.9%), and routine physical exam (67.4%). 71.7% women reported they “ever had” a CBE. 61.7% perform SBE, 84.8% had a Pap smear, and 83.2% over 40 years had a mammogram. Logistic regression showed compared to women who never had cancer screen practices, odds of women who reported they “ever had” Pap smear lived more years in the US, were acculturated, had health insurance, and were younger; women who “ever had” CBE lived longer in the US, were acculturated, and had health insurance; women who “ever had” mammogram were older, lived longer in the US, had favorable perceptions to cancer screening, and had health insurance. The models explained 61% variance in mammogram, 9% for BSE, 27% for CBE, and 29% for Pap smear.

Conclusions: Even though health care coverage was slightly higher than the national average, results indicated Asian Indian women have cancer screening practices lower than the general U.S. population.

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MAMMOGRAPHY SCREENING AFTER BREAST CANCER DIAGNOSIS IN A FIRST DEGREE FEMALE RELATIVE (FDR)

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Mammography screening guidelines are articulated according to age and family history. This study assessed rates and predictors of mammography screening among three age groups of women at higher risk because of family history: 18-39, 40-49, and 50-75.

A prospective cohort study was conducted among 569 adult FDRs of 306 women with incident breast cancer (BrCAs). Participants completed interviews at diagnosis and six and twelve month follow-up. Logistic regression analyses compared those screened since baseline with those not. Screening rates were: 31.9%, 73.5% and 80.0% among the three groups respectively. Screening predictors among youngest women were: physician recommendation, being the patient’s sister and reporting excellent chance of cure if BrCA is detected early. Among women 40 to 49, predictors were reporting excellent health status, high personal risk perception, perception that nothing can be done to control BrCA risk, reporting chance of cure if BrCA is detected early is excellent and high level of distress. The only predictor among those 50 to 75 was higher education. Mammography rates were high among women age 40 and over, and considerable among those under 40 given lack of practice guidelines. Results reinforce the clear influence of provider recommendations. The association of psychosocial factors among those 40 to 49 suggest subgroups for tailored interventions. Results also indicate success of campaigns to promote screening among women 50 and over.

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AWARENESS OF BREAST CANCER RISK AFTER HODGKIN’S DISEASE: A QUALITATIVE STUDY

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Young female Hodgkin’s Disease (HD) survivors are at significantly high risk for breast cancer (BrCA) secondary to receiving chest irradiation for treatment of HD. Many survivors are unaware of this increased risk and do not engage in recommended risk management strategies. Our aim was to explore health perceptions and behaviors, barriers to screening and educational needs of young, healthy female HD survivors at high risk for BrCA.

Three focus groups and nine individual interviews (n=21) were conducted with women treated at least 5 years earlier at major medical centers in Boston. Mean age was 32 (range 22-40) and mean age at diagnosis was 20 (range 12-31 years). Interviews were recorded and transcribed. Content analyses were performed, and overall themes were identified using an immersion and crystallization process. Although all participants reported active efforts to maintain a healthy lifestyle, approximately half did not participate in any regular breast cancer screening. Findings revealed a general lack of knowledge about BrCA risk and screening. Women actively avoided acknowledging risk of secondary cancer. Additional barriers included insurance concerns, and a lack of support from primary care physicians. Lastly, women’s perceived risk was lower than their actual BrCA risk. The reasons that prevent healthy female HD survivors from participating in BrCA screening are complex. Notably, young female HD survivors underestimate their BrCA risk, despite their risk elevation. Educational intervention that is tailored to the psychological needs of HD survivors is called for.

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EFFECTS OF A PSYCHOSOCIAL INTERVENTION ON BREAST CANCER EDUCATION

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The current study examined the effects of a multimedia intervention on individuals’ responses to threatening health information. In a 2 (intervention vs. control group) X 2 (pretest vs. posttest) mixed experimental design, 186 female college students were randomized into either the control or intervention condition. Both groups attended two sessions within a 48 hour period. During session 1, intervention participants read a high-threat essay containing information about their risk for breast cancer, photos of breasts, and vivid descriptions of chemotherapy. Additionally, they watched a video portraying young women who had been diagnosed with breast cancer. During session 2, topics from session 1 were reviewed and all intervention participants received comprehensive information focused on the importance of breast self-examination (BSE). BSE information was provided through various sources (brochures, videos, and internet).

The control group mirrored the procedures described in the intervention group; however, the information was focused on general nutrition education. In both groups, extensive group discussions were held after each activity. Participants also played an active role in creating possible interventions focused on their specific topic (e.g., breast cancer or nutrition). Mixed ANOVAs revealed that the intervention group scored higher overall on adaptive behaviors (e.g., rational problem solving and behavioral intentions), suggesting that the intervention increased adaptive responses to breast cancer threat. Conversely, control participants scored significantly higher on maladaptive responses (e.g., hopelessness, avoidance, and fatalistic religiosity) to breast cancer threat. Intervention participants reported greater use of BSE at a 3-month follow-up assessment. Results were interpreted in terms of protection motivation theory, a model that applies the social psychology of persuasion to preventive health.

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COMMUNITY-BUILDING OF AN EVIDENCE BASE: THE PROPOSED COCHRANE BEHAVIORAL MEDICINE FIELD

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Behavioral medicine research and practice would benefit from developing an evidence base of trials on behavioral medicine interventions. After a review of existing evidence-based review systems, the Evidence-based Behavioral Medicine Committee (www.sbm.org/ebmm/) recommended that behavioral medicine join the Cochrane Collaboration (www.cochrane.org) as a Cochrane Behavioral Medicine Field. An Ad hoc international group representing many societies including SBM is working on this project.

The Cochrane Collaboration is an international organization that has promoted and assisted in the conducting and compiling of systematic reviews of interventions for many years. Topic-based Cochrane Fields facilitate the work of the disease-based Collaborative Review Groups within the Cochrane Collaboration through, for example, creating and updating specialized registers of relevant trials. The proposed Cochrane Behavioral Medicine Field will benefit behavioral medicine through these trials registers as well as through advocating for reviews of behavioral medicine interventions within the various Collaborative Review Groups.

The purpose of this poster presentation is to educate SBM members about the Cochrane Collaboration and the proposed Cochrane Behavioral Medicine Field, as well as discuss with them the many opportunities to get involved in the proposed Cochrane Behavioral Medicine Field: e.g., writing Cochrane reviews; reviewing Cochrane protocols (preliminary summaries of review plan) and reviews; providing expertise in methodology used in behavioral medicine to Cochrane Review Groups, etc.

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THE INFLUENCE OF PARTNER SEROSTATUS AND PARTNER TYPE ON THE SEXUAL RISK BEHAVIORS OF HIV+ METHAMPHETAMINE USERS

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High rates of HIV and other sexually transmitted diseases have been reported among gay and bisexual methamphetamine (meth) users; however, few studies have examined whether partner serostatus and partner type influence the sexual risk practices of HIV+ meth-using Men who have sex with men (MSM). This study investigated the role of partner serostatus and partner type in relation to the sexual risk behaviors and disclosure practices of 132 HIV+ meth-using MSM. The sample consisted of MSM who reported having both serodiscordant (i.e., HIV-negative and unknown serostatus) and seroconcordant (i.e., HIV-positive) partners during a two-month period. HIV+ meth-using MSM had almost twice as many serodiscordant as compared to seroconcordant partners (8.8 vs. 4.6, p<.001) and engaged in significantly fewer acts of anal sex with serodiscordant as compared to seroconcordant partners (9.3 vs. 12.7, p<.05); however, mean levels of unprotected anal sex were high with both serodiscordant and seroconcordant partners (8.9 vs. 12.6, p<.05). Oral sex occurred twice as often as anal sex and was mostly unprotected. This pattern of risky oral and anal sex was reported for steady, casual, and anonymous partners, regardless of partner serostatus. Rates of serostatus disclosure to HIV-positive and HIV-negative steady, casual, and anonymous partners were high. However, rates of disclosure to unknown serostatus partners were low, particularly for anonymous partners. HIV prevention programs should: 1) address reasons why some HIV+ meth-using MSM modify their risk behavior with serodiscordant partners and others do not; and 2) emphasize risks associated with unprotected sex with serodiscordant partners.

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PROACTIVE CESSATION TREATMENT IN A MANAGED CARE SETTING

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Most smokers are not ready to quit, and even when ready, will not seek formal assistance. This study tested the feasibility of a proactive, phone-based smoking cessation intervention within a managed care organization. Female smokers with a recent abnormal pap test were identified via automated contacts, contacted, screened, and invited to participate in a phone-based counseling program, regardless of their desire to quit. Two hundred seventy five women enrolled (79% of eligibles). Mean age was 33, 82% were Caucasian, and mean FTND was 3.5 (SD = 2.2). Participants were randomized to usual care (UC; advice to quit, referral, and self-help) or UC plus 4 proactive counseling calls during a 6 month period (motivationally enhanced counseling; MEC). Call timing and content was individualized to women’s readiness to quit. Phone surveys were conducted at 6 and 12 months. Although the study was not powered to find statistically significant differences, 6 month outcomes were clinically significant (12.4% UC vs. 19.6% MEC). Among women interested in quitting within 6 months at baseline (Contemplators and Preparers, n = 229), abstinence rates were 12.5% UC vs. 23.1% MEC (P = .04). MEC abstinence rates were maintained at 12 months, but increased in UC (19.7% UC vs. 18.1% MEC, P = NS; n = 275; 21.4 UC vs. 19.7% MEC, P = NS; n = 229). Biochemically confirmed rates were lower, but maintained the same trend. The intervention was feasible. Implications for study effectiveness will be discussed.

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CLINICAL UTILITY OF ADHERENCE MEASURES IN THE MANAGEMENT OF HIV

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Measures of medication adherence associated with viral load (VL) can be important tools in the management of HIV. Self-report items from the AIDS Clinical Trials Group Adherence Questionnaire (ACTG) are easy to administer in a clinical setting but subject to bias. Pill count is less subject to bias, but difficult to implement. Structured interviews to elicit 7-day recall provide important details about adherence patterns, but are time consuming to administer. Measures of VL and medication adherence were collected at 4 clinic visits over 6 months. GEEs were used to analyze the association of VL with multiple adherence measures. Lower VL was associated with better adherence measured by 30-day pill count (p = .03) and 7-day recall (p = .02) and was also associated with better adherence as measured by ACTG items: a) number of days patient took no medications at all (p < .0001); b) number of days patient missed even a single dose (p = .001); and c) number of days since last missed dose (p = .0008). Single-item adherence measures are easily incorporated in the routine management of HIV to enhance clinical outcomes by identifying patterns of poor adherence associated with increased VL. Interventions informed by brief adherence assessment include feedback to patients regarding medication use and VL and referral for more detailed behavioral assessment and intervention if needed. Sponsored by NIAID R01-AI45403.

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SHARED DECISION-MAKING AND CHRONIC LOW-BACK PAIN- FEASIBILITY IN THE PRIMARY CARE SETTING

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While shared decision-making (SDM) has often studied single-decision issues like PSA testing, it is unclear how SDM applies to chronic care. A RCT for SDM was conducted with 60 primary care patients with low-back pain (LBP); patients were randomized to usual care (back-care brochure) or SDM back-care video. Outcomes assessed at baseline, 1-, 3-, and 6-month post intervention included 7-elements of decision-making, patient’s report on their role in LBP management, utilization, and treatment choices, as well as patient and physician satisfaction. Study patients were 76% female, ethnically diverse, an average age of 45, with average duration of back pain of 11 years. In initial analysis of patient responses, we have calculated a subscale, “pro-activity” factor, or measure of comfort in active engagement. At baseline, there is no difference between groups (video average = 10.26, handout = 11.33, maximum 15, p=0.1). Surprisingly, there was also no difference (p=0.9) at one month, i.e. the high quality video had little impact in this measure compared with a standard patient education handout. Beyond this, we will look for differences at three and six months in utilization, treatment choices, and outcomes. We predict patients’ initial Health Locus of Control scores will moderate response to the SDM tool and selected health outcomes. Shared decision-making in primary care offices is challenged given numerous factors from patients, physicians and the systems of care. Translation of SDM to busy primary care practices for patients with chronic issues will be discussed.

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APPROACHING PATIENT SELF-MANAGEMENT SUPPORT FROM A SYSTEMS PERSPECTIVE: THE CO-MANAGEMENT LEARNING NETWORK

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Objective: Test the feasibility of implementing self-management support for patients with chronic illness using techniques nested within the 5A’s of health behavior change framework and the Chronic Care Model.

Design: Demonstration project using Breakthrough Series rapid cycle quality improvement methodology

Setting: Ambulatory care settings in 3 federally qualified health centers, 2 integrated delivery systems and 1 group model health maintenance organization

Intervention: 3 bi-monthly face-to-face learning sessions and monthly technical assistance calls focusing on suggestions on systems changes based in the 5A’s of health behavior change and the Chronic Care Model over a 7-month period.

Main Measures: 1) Self-reported ability to implement collaborative self-management support in at least 80% of interactions, 2) Patient’s perception that collaborative self-management support takes place in at least 80% of interactions and 3) Patient’s were satisfied with quality of self-management support interactions at least 80% of the time.

Results: 4 of 6 pilot teams were able to reach a score of 4 points out of 5 denoting significant improvement in their ability to provide self-management support with plans for organizational sustainability and spread, meeting or exceeding the above threshold measures.

Conclusion: Using the SA’s health behavior change framework network is an effective method for implementing self-management support within diverse delivery settings.

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BI-DIRECTIONALITY OF INTEGRATED CARE: MEDICAL ISSUES IN BEHAVIORAL HEALTH OF COLLEGE STUDENTS

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Primary care has been described by Peek & Heinrich (2000) as the de facto mental health care delivery system. Whether health services on college campuses play the same role is unclear. We examined whether psychological distress [Symptom Distress subscale of Outcomes Questionnaire–45 (OQ–45)] affected medical visits of 163 undergraduate psychology students (mean age 21.8 years; 67.5% female; 83.4% single; 67.5% European American, 25.2% African American, 7.4% other ethnicities) at a Midwestern university. Hierarchical stepwise multiple regression with demographics in the first block, medical conditions in the second, and Symptom Distress in the third, indicated 24% of the variance in physician visit frequency was accounted for by gender, asthma, headache, and other conditions (F(4,159)=12.57, p<.001); 5% of the variance in emergency room visit frequency was accounted for by asthma alone (F(1,162)=8.43, p<.01). Contrary to our hypotheses, Symptom Distress was excluded from both models. We then examined the relationship between psychological distress and medical conditions. Hierarchical stepwise multiple regression with demographic variables in the first block, and medical conditions in the second, indicated 20% of the variance in Symptom Distress and 15% of the variance in the OQ–45 total score were accounted for by headache frequency and asthma alone (F(2,163)=31.09, p<.001, and F(2,163)=13.85, p<.001) respectively. These findings suggest in college behavioral health settings, providers should assess the contribution that common medical conditions such as asthma and headache may make to psychological distress. Collaborative consultation with medical providers may be indicated, highlighting the bi-directionality of the integrated care model.

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**PASSAGES TO CHANGE: EFFICACY OF A RANDOMIZED CONTROLLED TRIAL TO INCREASE FAMILY CONSENT FOR CADAVEERIC ORGAN DONATION**

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Despite significant efforts to increase the availability of organs for transplant in the U.S., only 50% of the families approached for consent agree to donate their loved one’s organs. This highlights the need to provide families with supportive counseling and interventions to aid them in this difficult decision process. The Passages to Change project utilized a training curriculum based on the Trans-theoretical Model (TTM) of change designed for organ procurement coordinators to improve the donation consent process. Sixteen organ procurement organizations (OPO) were randomly assigned to either TTM intervention or monitoring conditions. All OPO personnel who approached families for donation consent (n=143) completed a training curriculum including group interactive sessions at 6-month intervals across a two-year period. Procurement coordinators were taught to more accurately and appropriately match their interventions to the needs of acutely grieving families to enhance organ donation decision-making. Data on OPO statistics including family approaches and consents gathered across the trial and were collapsed for comparison annually. At baseline both groups had consent rates near the national average of 50% (t(2774)=0.634, ns). The intervention group consent rate was significantly higher at the 1-year intervention point (56% vs. 51%; t(2580)=2.322, p<.0102) and this advantage was maintained at two years (54.6% vs. 49%; t(3043)=3.079, p<.0010). Results support the efficacy of this theory-based intervention to increase organ donation consent rates and to sustain those increases.

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**RANDOMIZED CONTROLLED TRIAL OF A BRIEF INFORMATION, MOTIVATION, AND BEHAVIORAL SKILLS INTERVENTION TO REDUCE HIV/STD RISK IN YOUNG WOMEN**

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**Background:** Rates of HIV and STDs are increasing among young women, especially women at sexual health clinics. This study investigated whether motivational enhancement strategies, in addition to information and behavioral skills, would augment a standard care intervention for young women aged 18-24 at a university-based gynecological clinic.

**Method:** Eligible women at-risk for HIV/STDs were randomized to information-motivation-behavioral skills (IMB) or information-only (I) intervention conditions, and assessments were conducted pre-intervention, post-intervention, and at 2-month follow-up. Primary outcomes included theoretical antecedents and sexual risk behaviors (unprotected vaginal sex, condom use, HIV/STD testing), including biological outcomes (STD diagnosis).

**Results:** Women who received the IMB intervention had improved HIV/STD knowledge and self-efficacy for safer sex at follow-ups, compared to women in the I control intervention. Women in both interventions had improvements in partner norms for safer sex at follow-ups. However, there were no differences in other motivational variables, namely condom attitudes, decisional balance, and behavioral intentions. There were no differences in the frequency of communication skills or refusal of unprotected sex. Women in both interventions reduced the number of sexual partners and the frequency of unprotected sex at follow-up.

**Conclusions:** This study showed that a brief motivational intervention is acceptable and effective for high-risk female college students and feasible in a university-based gynecology clinic. The brief motivational intervention showed promise for improving STD/HIV knowledge, self-efficacy, and reducing the number of incident STDs.

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**EFFECTS OF ANTIVIRAL TREATMENT FOR HEPATITIS C ON POSTTRAUMATIC STRESS DISORDER**

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Neuropsychiatric side effects of antiviral treatment for Hepatitis C Virus (HCV) are well documented. Individual appropriateness for HCV treatment is challenged by the prevalence of coexisting psychiatric and substance use problems. Despite the high-risk behavior histories of veterans with posttraumatic stress disorder (PTSD), there is a dearth of research on antiviral treatment and PTSD. Case studies report the reemergence of PTSD symptoms during antiviral treatment of nonveterans (Maunder, Hunter, & Feinman, 1998). The current study investigated the effects of HCV treatment on posttrauma symptoms in a large sample of veterans (N=177). Participants with a history of trauma completed the Posttraumatic Stress Disorder Checklist (PCL) at pretreatment (n=71), and at least monthly throughout treatment. Twenty-five percent of the entire sample met PCL criteria for PTSD. Patients with PTSD reported greater baseline depression, t(69)=4.26, p<.001, and anxiety sensitivity, t(69)=5.10, p<.01. Positive PTSD status was related to history of polysubstance abuse (with and without intravenous use), X^2(3)=9.35, p<.05. Individuals with PTSD were more likely to be on antidepressants prior to antiviral treatment, X^2(1)=7.99, p<.01, and during treatment, X^2(1)=4.63, p<.05. There were no associations between PTSD status and who started or completed treatment. Regardless of PTSD status, PCL scores across treatment and at follow-up did not significantly differ from baseline. Interestingly, more patients with PTSD cleared the virus at end of treatment, X^2(1)=4.23, p<.05, and at 6-months post-treatment, X^2(1)=10.43, p<.01. Results suggest that patients do not display worsening post-trauma symptoms during antiviral treatment for HCV, and patients with PTSD do not prematurely discontinue treatment.

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**AN INVESTIGATION OF THE ROLE OF HEIGHTENED ANXIETY SENSITIVITY WHILE ON ANTIVIRAL TREATMENT FOR HEPATITIS**

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Anxiety sensitivity refers to the likelihood of becoming fearful in response to physical sensations and concluding that these symptoms pose a serious threat. Higher scores on the Anxiety Sensitivity Index (ASI) suggest more exaggerated, fearful beliefs about the harmfulness of such sensations. For individuals undergoing antiviral treatment for Hepatitis C (HCV), somatic side effects such as fatigue, myalgia, headache, and nausea are common. These investigators hypothesized that higher levels of anxiety sensitivity may be associated with greater emotional reactivity to such side effects, placing patients at higher risk for discontinuing treatment. One hundred seventy-seven veterans (age range 34-64; 98.3% male), referred to an HCV Clinic for evaluation, were given ASIs and Beck Depression Inventories (BDI) at pretreatment. Patients with a trauma history were also given Posttraumatic Stress Checklists (PCL). Patients were tested at least once monthly throughout treatment. Mean baseline ASI was 16.66 (SD=11.71). The ASI was significantly correlated with the BDI (r=−.66, p<.001) and the PCL (r = .60, p<.001). A history of intravenous drug use (F(3, 170)=3.02, p<.05) and incarceration (F(2, 171)=3.66, p<.05) were also associated with higher ASI scores. Patients who were started on antiviral treatment reported lower ASI scores than those who were not (t(172)=2.18, p<.05). There was no association between ASI scores and the decision to terminate treatment. Results indicate that while increased ASI scores may be associated with many negative outcomes, they do not appear to correlate with early treatment discontinuation.

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DONORS WHO REACT MAY NOT COME BACK: ANALYSIS OF REPEAT DONATION AS A FUNCTION OF PHLEBOTOMIST RATINGS OF VASOVAGAL REACTIONS
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Prior reports suggest that vasovagal reactions during blood donation are associated with fewer repeat donations; however, this relationship has not been adequately evaluated in a large sample of first-time and experienced blood donors. In the present study, we examined data for all allogeneic whole blood donors (n = 89,587) in the American Red Cross Blood Services, Central Ohio Region during an entire year. Using a donor database system, we retrieved information on donor demographics, phlebotomist ratings of vasovagal reactions at initial donation, and instances of repeat donation attempts in the subsequent year. Results of a one-year follow-up revealed that intensity of donor reaction was significantly related to donor return. Specifically, light vasovagal reactions, which represented 97% of all reactions recorded, significantly reduced return rates by 20% for first-time donors and 33% for experienced donors. Moderate and severe vasovagal reactions reduced the likelihood of repeat donation by more than 50%. A more severe reaction was also related to a longer lag between donations, F(3, 55503) = 1344, p < .001, and a reduced number of repeat donation attempts in the follow-up year. In sum, vasovagal reactions to blood donation are a significant deterrent to repeat donation for novice and experienced donors. Application of prevention strategies should be considered as part of the ongoing effort to maintain and enhance the available blood supply.
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THE UTILITY OF PSYCHOMETRIC TESTING IN DETERMINING RENAL ORGAN DONOR SUITABILITY
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Mental health providers are commonly asked to assess the psychological appropriateness of living organ donor candidates, and they often use psychometric instruments to facilitate their decision making. However, the efficacy of using psychometric instruments to make these decisions has not been well examined. In the current study, eighteen living renal donor candidates completed an extensive psychological interview and psychiatric battery. Their normative psychometric profile revealed no significant pathology and high consistency with the general population (Balderson & Mori, 2000). In contrast, information from the structured interview and chart reviews revealed that many donor candidates had major psychiatric histories. For example, one-third of the sample had a history of psychiatric hospitalization. Twenty-two percent had a history of depression, with nearly 17% of the sample endorsing a history of suicidality. Furthermore, 22% of the donor candidates reported a family history of major psychiatric disorders. Univariate analyses of variance were conducted to determine if there were significant differences between those with and without a history of psychiatric hospitalization. Surprisingly, no differences were found on the MMPI2, Beck Depression Inventory, COPE, or Multidimensional Health Locus of Control scales. These preliminary findings raise questions about how these commonly used instruments contribute to decision making about organ donor candidacy. In addition, the results underscore the importance of conducting a comprehensive assessment to learn about potential psychological vulnerabilities that might not be identified on testing. The implications of these findings are significant, particularly given the highly stressful nature of the living renal organ donation process.
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THE RELATIONSHIP BETWEEN CHANGES IN BODY COMPOSITION AND BONE LOSS DURING PERIMENOPAUSAL TRANSITION
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Perimenopausal transition is associated with reduced bone mineral density (BMD), an increase in total body fat, and a decrease in lean body mass. The purpose of this study was to describe the relationship between changes in body composition and changes in BMD in women going through perimenopausal transition. A total of 28 sedentary perimenopausal women with HRT (n=12) or without HRT (n=16), aged 45-55 years (mean=49.9; sd=3.34) were examined with dual x-ray absorptiometry for body composition and BMD (lumbar 2-4 and right femur) at baseline and one year. We found that none of the participants were osteoporotic at baseline or one year. Both HRT and NonHRT groups had significant bone loss (gm/cm2) in lumbar (L2-L4) (mean loss=0.049 and 0.057), femoral neck (mean loss=0.039 and 0.089), and total femur (mean loss=0.024 and 0.064) respectively during the one-year period (all P<0.05). NonHRT group had significantly more bone loss than the HRT group in femoral neck (P<0.05). Both groups also had significant losses in central lean mass but gains in lean mass of arms and legs. HRT group also had a significant increase in central adiposity (P<0.05). However, no associations were found between changes in total or regional body composition and changes in BMD. In conclusion, women lose significant amount of bone mass and central lean mass even if they have gained total and peripheral (arms and legs) lean mass. Gaining in total lean mass does not appear to have a protective effect against bone loss during perimenopausal transition.
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GENOMIC MEDICINE: AN INNOVATION IN PRIMARY CARE
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Applications of genomic medicine are predicted to be the future of disease prevention and primary health care. It has been projected that primary care physicians (PCPs) will be responsible for screening patients for inherited diseases, recommending testing, and referring to genetic services. A state-wide representative sample of primary care physicians in Texas responded to a survey based on Roger’s Diffusion of Innovation Theory. The study utilized the perceived characteristics of genomic medicine to assess whether Texas PCPs’ perceptions of genomic medicine influence their likelihood of adopting this innovation into primary care.
Perceived complexity is the strongest predictor of likelihood of PCPs adopting genomic medicine. Many PCPs find it difficult to keep pace with the type and availability of genetic tests and locate genetic services. Texas PCPs believe the best advantage of genomic medicine is to supplement a family history, They also feel that taking a more detailed family history could easily be incorporated into primary care practice. However, components such as genetic counseling are not compatible with most PCPs current practice. As PCPs play a larger role in diagnosing genetic susceptibility to many common disorders, the ability to change behavior (including lifestyle and diet) based upon health risks will also be a challenge.
The study indicates that greater emphasis will be placed on knowledge pertinent to genomic medicine in medical education curricula and continuing education. Links with specialists trained in genetic counseling and health education will also be essential to help translate relevant information to patients and families.
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THE EFFECT OF PREVENTABILITY AND SEVERITY OF A GENETIC DISORDER ON DESIRE TO COMMUNICATE GENETIC TEST INFORMATION WITH FAMILY

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Little is known about how the severity and preventability of a genetic disorder affect dissemination of genetic information within families. This study used an experimental design to examine the impact of severity and preventability on belief that genetic test results should be shared with family members. Personal desire to be tested and desire to have family members tested were also evaluated. Participants were 359 undergraduate students who received one of four descriptions of a fictitious genetic disorder called hemochromatosis (i.e., factorial combination of high vs. low disease preventability and high vs. low disease severity). Most (90.7%) participants agreed that information regarding genetic testing should be shared with family members. Logistic regression analyses indicated that disease severity and preventability did not influence agreement that genetic information should be shared with family members or interest in being tested for the disorder. Participants who read about the disorder as preventable were more likely to agree that their family members should be tested for the disorder (OR = 1.82, p < .05). Males and Caucasians were less likely to agree that family members should be tested (p < .05). When the disorder was described as preventable, the effect of the severity manipulation on perception of disease severity was minimized (p = .05). These data suggest that understanding a disorder to be preventable may both increase encouragement of family members to be tested and affect perceived seriousness of the condition.

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A MODEL OF DISEASE-SPECIFIC WORRY IN HERITABLE DISEASES

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Health behavior theories emphasize individuals’ cognitive evaluations of their particular disease risks, but emotional factors, such as disease-specific worries, also play a role. High perceived risk and worry have been reported in individuals at familial risk for diseases, but relationships among these variables, and to broader conceptualizations of perceived risk and worry across illnesses are not well understood. We tested (LISREL) hypothesized causal links among these variables in 434 participants (59.2% female, 54.8% Caucasian, mean age = 40) who completed an anonymous survey assessing family history, perceived risk, and worry for: breast, prostate, and colon cancers, heart disease, and diabetes. All testable models (with minor variations in colon cancer) revealed a consistent pattern of results (comparative fit indices range = .99 - 1.0): 1) Family history predicted greater disease-specific perceived risk, but not risk for other diseases; 2) Disease-specific perceived risk mediated the relationship between family history and disease-specific worry; 3) Greater perceived risk of other diseases predicted increased disease-specific risk and increased worry about other diseases, but not disease-specific worry; 4) Greater disease-specific worry predicted increased worry about other diseases; 5) Greater disease-specific perceived risk predicted greater worry about that disease, but reduced worry about other diseases. Findings suggest that interventions targeting disease-specific perceived risk might have downstream effects, reducing not only disease-specific worry, but health related worries more generally.

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HIGH EFFORT COPING (JH), CHRONIC PAIN AND MORBIDITY IN PATIENTS WITH SICKLE CELL DISEASE (SCD)

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African Americans and Caucasians often employ different coping strategies to manage medical crises. John Henryism (JH), an empirically validated coping strategy, is utilized by many African Americans. JH is characterized by high effort coping, and in inadequate environments, is associated with negative health outcomes. We evaluated the effects of the interaction of JH and self-efficacy (SE), as an index of psychological resources, on pain and psychiatric morbidity in fifty adult patients, mean age 38.93 (13.51), with SCD. The JH x SE interaction was found to effect the summary index of pain and current level of physical functionality (p < .03), but not the sensory or affective components of pain as measured by the Short-Form McGill Pain Questionnaire. The JH x SE interaction was also found to effect morbidities such as Obsessive-Compulsive thoughts and behaviors (p < .02) Depressive Sensitivity (p < .01), Depression (p = .02), Anxiety (p = .03). Paranoia (p = .01), Psychosis (p = .01), the General Severity Index (p = .01), the Positive Symptom Distress Index (p < .03), and the Positive Symptom Total (p < .01) as measured by the Symptoms Checklist, 90-item Revised. The authors conclude that high effort coping in the context of inadequate or altered psychological resources is associated with increased reports of pain and pain-related morbidity in patients with SCD.

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MOTIVATED, DISTRESSED OR COMPLACENT? ANTICIPATING SMOKERS’ RESPONSES TO GENETIC TESTING FOR SUSCEPTIBILITY TO CANCER AND HEART DISEASE

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A new line of behavioral research has begun to address the psychological and behavioral impact of genetic testing for susceptibility to common diseases. To address this, we investigated anticipated responses to genetic testing for cancer and heart disease in a general population sample of smokers, using a cross-sectional community-based survey.

Participants were 184 smokers, comprising 18% of total respondents (n = 1,024) who were asked about their responses to negative and positive genetic test results for both cancer and heart disease risk.

In response to a positive genetic test result for cancer [heart disease], 68% [60%] believed they would quit smoking; 39% [27%] would feel depressed; 10% [6%] would regret being tested. In response to a negative result, 10% [16%] would feel it was safe to smoke. Overall, women would be more depressed (p < .04) but marginally less resentful about having taken one of the tests (p = .06). Lower education was associated with believing that a negative result would mean it was safe to smoke (p < .005). Additional psychosocial variables were also examined.

This study supports the hypothesis that genetic testing could motivate smoking cessation, but indicates a risk of negative affective responses. Significant subgroups may misinterpret the results, possibly leading to complacency amongst those who test negative. Interpretation, understanding, and potential emotional and behavioral responses to results, will play an important role in policy development as the genetic components of multifactorial diseases are increasingly understood. These findings have been used to inform the design of a trial in which smokers were given GSTM1 gene feedback.

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THE ROLE OF ALEXITHYMIA IN THE CHRONICITY OF NON-CARDIAC CHEST PAIN

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Chest pain in the presence of normal coronary arteries, or non-cardiac chest pain (NCCP), often results in depleted medical resources and over utilized cardiac facilities. Alexithymia is a deficit in the ability to differentiate affective from somatic states. The present study examined alexithymia in NCCP patients reporting varying levels of pain chronicity. Data were collected from 170 patients (98 females, 69 males) with a primary complaint of chest pain seeking cardiac evaluation at an urban medical center. Individuals meeting inclusion/exclusion criteria completed a multitrait multimethod assessment and were divided into three groups according to pain chronicity. Analyses were conducted to examine the relationship between chronicity of chest pain, levels of alexithymia, and preoccupation with internal sensation. Results indicated that individuals reporting immediate onset pain (less than 7 days onset; M=78) and those reporting chronic pain (pain lasting longer than 6 months; M=74) scored significantly higher on measures of alexithymia than did individuals with acute chest pain (pain lasting between 1 week and 6 months; M=67). Additionally, increased levels of alexithymia were associated with less time spent scanning the body for physical sensation (r = .24, p < .05). These findings highlight the role that interoceptive and affective avoidance plays in the chronicity of NCCP and suggests that treatments improving affective expression might aid in reducing the likelihood that acute pain will develop into chronic pain.

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PSYCHOSOCIAL FACTORS AND MORTALITY IN A SAMPLE OF POST-ANGIOGRAPHIC WOMEN AT TWELVE YEAR FOLLOW UP

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A sample of 59 women undergoing cardiac catheterization were assessed on a variety of psychosocial variables in 1991-1992. Mortality at 12-year follow up was obtained from death indexes. After controlling for baseline degree of coronary occlusion and traditional risk factors for CHD in logistic regression, self-reported depression was positively correlated (R²=.48) with mortality. Further, BDI scores interacted with self-reported social desirability to predict mortality in the direction of concerns about self-presentation adding to risk in the depressed women only. These data are consistent with previous research that suggests that depression contributes to coronary risk. In contrast, trait anxiety may prompt women to seek treatment early or to be more compliant, decreasing risk of death.

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PSYCHOSOCIAL CORRELATES OF PREMATURE CORONARY HEART DISEASE AMONG URBAN RESIDENTS

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There has been an increase in premature coronary heart disease among urban residents in developed countries over the last few years. The current study investigated the psychosocial parameters of coronary heart disease among younger versus older patients presenting at a Cardiology Unit with an acute event in Bronx, New York. Participants (N=38) were Men = 50%; White = 32%, Black = 16%, Hispanic = 45%, Asian/Pacific Islander = 5%, Other = 2%; Average Age = 55.79 years. Some high school education or a high school diploma = 44.7%; Married = 50%. Participants completed self-report measures of depression, anxiety, hostility, stress, and social support. Younger participants experiencing coronary events reported significantly greater affective distress including depression (p<.01), anxiety (p<0.07), hostility (p<.02), and stress (p<.02) compared to older participants. Social support did not vary by age. When analyses were computed separately for men and women, affective distress was not related to age among women. Younger participants, especially men, report greater affective distress, compared to women presenting with acute coronary events.

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PATIENT CHARACTERISTICS AND DEPRESSION TREATMENT PREFERENCES IN POST-ACUTE CORONARY SYNDROME PATIENTS

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Depressive symptoms are common in post-Acute Coronary Syndrome (ACS) patients, but their preference for treatment options is unknown. We examined the association between patient characteristics (depression status, age, sex, race, ethnicity, work status, weighted family income, and education) and treatment preference (medication vs. counseling) in a sample of mildly to severely depressed ACS patients (N = 102) recruited within a week after the ACS. Furthermore, we assessed the association between patient characteristics and the willingness to talk about (1) feelings about self, (2) recreational activities, and (3) relationships. Depressive symptoms were assessed with the Beck Depression Inventory (BDI).

48.0% of patients indicated preference for medication treatment. 54.1% of mildly dysphoric patients (BDI score 10-16), and 39.0% of moderate to severely dysphoric patients (BDI ≥16) preferred medication treatment over counseling (n.s.). Controlling for depressive symptoms, female patients had a higher preference for medication in comparison to male patients (p < .05); no other demographic variable was associated with treatment preference. Older age was associated with decreased willingness to talk about recreational activities (r = -.30, p < .01). In addition, severely dysphoric patients were more willing to talk about themselves than mildly dysphoric patients (p < .05).

Although it is known that older patients have strong preferences for type of depression treatment, this is the first study to our knowledge to determine these preferences in post-ACS patients. Given the even split in preference, it may be prudent to offer choice when testing depression treatment in these patients.

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EFFECTS OF A WORKSITE ANGER AND STRESS MANAGEMENT WORKSHOP WITH HYPERTENSIVES

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While there is considerable evidence that intensive cognitive-behavioral stress and anger management interventions are effective in reducing self-reported distress and physiological indices of stress, fewer data exist regarding the effects of briefer psycho-educational programs on such outcomes. This is a preliminary report (N=62) who had undergone coronary angioplasty. Interviews were audio-taped, transcribed and analyzed line-by-line using Ethnograph v.5.0. Grounded theory methodology and open coding methods were used to identify common concepts. Categories were developed and organized according to their properties and dimensions to facilitate the development of themes. Transcripts were analyzed by 3 trained raters and corroborated by two additional raters.

**Results:** The mean age was 66 years and half were male. Fifty percent were married and 80% completed high school. Several themes emerged: 1) For patients undergoing angioplasty, it is a stressful life event that causes vulnerability and fear of death; 2) In response to angioplasty, self-determination is a key determinant of behavior change; 3) Patients use spirituality and social support from family and other patients as ways to cope with their fears; 4) Patients link their unsuccessful behavior change to a lack of control over their heart disease.

**Conclusions:** Post-angioplasty patients face unique challenges with behavior change. Acknowledging fear as a common theme and encouraging the use of social support and spirituality as coping mechanisms may enhance self-determination, which is an essential component of successful behavior change.

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IMPACT OF HEALTH ANXIETY AND INTEROCEPTIVE FEAR ON PAIN AND HEALTHCARE UTILIZATION IN PATIENTS WITH NON-CARDIAC CHEST PAIN

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Chest pain is one of the most common, frightening medical complaints. Chest pain in the presence of normal coronary arteries is a frequent presenting complaint in cardiology departments. This study examined the impact of health anxiety on chest pain and the impact psychological vulnerability factors may have on healthcare utilization. Data were collected from a sample of 170 patients (98 females, 69 males) with a primary complaint of chest pain or discomfort who were seeking cardiac evaluation at an urban academic medical center. Patients who met inclusion/exclusion completed a multitrait multimethod assessment. Hierarchical regression analyses were conducted to examine the impact of health anxiety, anxiety sensitivity, and interoceptive fear (i.e., fear of the physical symptoms of anxiety) on chest pain experience (frequency, intensity, and duration) and health care utilization (chest pain specific and general healthcare utilization). Results demonstrated that chest pain severity was associated with increased health anxiety ($r = .28$, $p < .01$) and healthcare utilization ($r = .27$, $p < .01$). Anxiety sensitivity, particularly interoceptive fear, significantly predicted healthcare utilization; fully 33% of the variance in healthcare utilization was accounted for by anxiety sensitivity alone. Our findings highlight the role anxiety, particularly worry about health and interoceptive fear, may play in healthcare utilization in patients with NCCP. Evidence-based interventions targeting worry and anxious preoccupation with heart functioning may reduce recurrent NCCP.

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SMOKING AMONG ADULT EMERGENCY DEPARTMENT PATIENTS: ABSTINENCE AND STAGE OF CHANGE ONE MONTH POST-VISIT

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Objective: To examine post-visit trends in smoking cessation after an emergency department (ED) visit. Methods: Consecutive adult ED patients were enrolled. Patients who were severely ill or who had altered mental status were excluded. Trained research assistants interviewed patients for demographics, smoking/quit history, stage of change (SOC), nicotine dependence, and self-efficacy. Smoking/quit history was re-assessed at 1 month post-visit. Univariate analyses predicting 7-day sustained abstinence and SOC progression at follow-up included chi-square, Fisher's Exact Test, or t-tests. All variables significant at \( p < 0.10 \) were then entered into multiple logistic regression models to predict the 2 outcome variables: Results: Of the 1969 patients enrolled, 751 (38%) smoked, and 610 agreed to follow-up assessment. At 1 month (n=2574/42%), 46 (18%) reported 7-day abstinence. Of 6 variables entered into the regression, 3 remained in the final model: smoking-related ED visit (OR=5.7, 95% CI 2.0-14.2), baseline SOC (OR 3.4, 95% CI 1.2-9.6), and self-efficacy (OR=0.87, CI 0.76-1.00). Similar patterns predicting SOC progression were found. Conclusion: Patients presenting to the ED due to a smoking-related medical problem reported greater motivation to quit and were much more likely to be abstinent or in later SOC at 1 month follow-up. Capitalizing on this elevated motivation state (i.e., teachable moment) may help to maximize cessation among ED smokers. Because many smokers treated in the ED are economically disadvantaged, they do not have access to other healthcare providers or cessation programs, making the public health implications of even brief ED interventions substantial.

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VALIDATION OF DEPRESSION AND BIPOLAR DISORDER SCREENING AMONG EMERGENCY DEPARTMENT PATIENTS

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Objective: To validate an emergency department (ED) based screening protocol for depression and bipolar disorder. Methods: For three weeks, consecutive adult patients presenting to an urban ED were screened. Patients who were severely ill or who had altered mental status were excluded. The Depression Screener included the 2 items recommended by the US Preventive Health Services Task Force: sad mood or anhedonia for 2 weeks. The Mood Disorder Questionnaire (MDQ) was used to screen for bipolar disorder. 3-5 days post-visit, patients were contacted and administered the CES-D and the Bipolar Spectrum Diagnostic Scale (BSDS), two well-validated symptom measures. Test-characteristics, including sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) of the Depression Screener and MDQ were calculated using the validated cut-offs established for the CES-D and BDSD. Results: Of 243 patients enrolled, 69 (28%) and 18 (7%) screened positive for depression and bipolar disorder, respectively. The Depression Screener’s test characteristics were: sensitivity=91%, specificity=67, PPV=91, NPV=67. The MDQ’s were: sensitivity=21, specificity=1.00, PPV=1.00, NPV=78. Alternating scoring of MDQ raised sensitivity to .50 without a marked reduction in specificity (97) Conclusion: 28% of patients in the ED screened positive for an affective disorder. The Depression Screener possessed very strong test characteristics. The MDQ standard scoring yielded many false negatives; alternating scoring helped address this problem. These results justify expansion of research efforts on screening, assessment, and ED-based brief interventions for affective disorders. The next step is to validate the screening instruments against structured clinical interviews.

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EFFICACY OF ULTRASOUND AND MOTIVATIONAL ENHANCEMENT COUNSELING ON PRENATAL SMOKING CESSATION

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Approximately 25% of women in the U.S. smoke during pregnancy, contributing to infant morbidity/mortality and increased health care costs; and low-income women are less likely to quit. A randomized controlled trial with 360 low-income pregnant smokers women was conducted in a Clinical Research Center to compare the additive effects of smoking messages delivered during fetal ultrasound (US) with motivational enhancement counseling (ME) on the end-of-pregnancy cessation rates. Participants were randomized to nurse-delivered best practice (BP), best practice and ultrasound (BP+US), or motivational enhancement and ultrasound (ME+US). It was hypothesized that at the end of pregnancy, US would be superior to BP and ME+US would be superior to BP+US. The cotinine-validated quit rates were not statistically significantly different between the three groups: 12% BP, 16% BP+US, and 20% ME+US. Subgroup analyses, however, revealed a significant interaction between baseline level of smoking and treatment. Number of cigarettes smoked at baseline was dichotomized to light (<10/day) or heavy (>10/day). Logistic regression showed that among light smokers (60% of the total sample), quit rates were highest in the ME+US group (32%), followed by BP+US (24%), and BP only (16%), \( p = .027 \). No differences were found among the heavy smokers. Thus, brief ME and smoking messages during ultrasound appear efficacious for reducing smoking in many pregnant women. However, more intensive interventions might be necessary to impact pregnant women who are smoking at higher levels.

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ETHICAL ISSUES ASSOCIATED WITH PROVIDING SUBSTANCE ABUSE SERVICES IN PRIMARY CARE

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Having a problem with drugs or alcohol is associated with significant stigma in this culture. Seeking treatment may put an individual at risk for legal, financial, social and work-related problems. The Code of Federal Regulations Title 42 (2CFR) was enacted in the 1970’s to protect the confidentiality of patients who were screened, assessed or treated for substance use disorders (SUDs) within a treatment program. At that time, treatment for SUDs was delivered in a physical location separate from other medical and mental health facilities. Significant progress has been made in the prevention, early identification, and effective treatment of SUDs. Primary care practices are encouraged to provide substance abuse services, including screening, assessment, brief intervention, follow-up care, facilitated referrals, and ongoing care treating SUDs as chronic illnesses. The USPSTF has given the provision of these services a B recommendation and the IOM and NIAAA have also recommended this. A practice that implements a regular screening and intervention program or hires a specialist to provide substance abuse services will be subject to 42CFR. The regulations affect documentation, communication, and staff access to patient information. The requirements are above and beyond what is required by HIPAA. Little guidance exists for meeting the requirements of the regulation in a primary medical care setting. Some practices have taken steps to ensure that the regulations don’t apply. However, there are ethical issues raised by taking this approach. Given the level of stigma associated with this problem, how can patients continue to be both treated and protected? This presentation will provide ethical analysis of this problem.

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PRELIMINARY OUTCOMES OF A CLINIC-BASED MOTIVATION AND PATCH TREATMENT PROGRAM FOR HIV-POSITIVE SMOKERS

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Many individuals with HIV are now faced with the prospect of living longer, healthier lives. Cigarette smoking is prevalent among HIV+ individuals and poses unique health risks to this population. Positive PATHS evaluates a motivational smoking cessation intervention among HIV+ smokers. Participants were randomized to receive either brief intervention (SC) versus more intensive motivational counseling (ME), with both providing 8-weeks of NRT to those setting a quit date. Among participants enrolled (N=444, mean age 43 years), 50.2% are White, 18.5% Black, and 16.2% Latino. The sample smoked an average of 22.79 (SD=11.16) cigarettes/day and endorsed high levels of nicotine dependence (FTND mean=6.7, SD=0.9), moderate levels of perceived stress (mean=5.7), and high levels of depressive symptoms (59% scoring ≥10 on the CESD). 38% consumed alcohol, 19% used marijuana, and 13% used other illicit drugs, compared to national rates of 59%, 6%, and 8%, respectively. Despite high comorbidities, 73% of participants set a quit date. Preliminary results suggest biochemically-verified seven-day quit rates at 6-month follow-up were not significantly different for ME (18%) compared to SC (19%). These rates were lower than those seen in clinical trials of patch vs. placebo, yet higher than rates observed with OTC patch use. Several explanations for an overall lack of difference between conditions will be discussed regarding psychosocial barriers to cessation in HIV+ patients, as well as barriers to implementation in medical settings.

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PATIENT-PROVIDER INTERACTIONS AND EFFECTIVE SELF-CARE: PREDICTORS OF PHYSICAL ACTIVITY

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More effective patient-provider interactions (PPIs) are associated with increased likelihood of adopting effective self-management of physical activity (PA). Little is known about what types of PPIs encourage patients to adopt recommended behaviors. This study examined the likelihood of obtaining a target exercise (TE) level with PPIs. The sample included 126 T2DM participants (Ps) who were 68% female, 79% White, 65% incomes of $40,000 or less, 60% trade school/ some college or less, with a mean age of 56 ± 12 years. Forty-eight percent participated in moderate level physical activity for at least 30 minutes, three to five times per week (defined TE).

We conducted a hierarchical logistic regression analysis to examine PPIs predictive of achieving TE. The model included frequency of PPIs on engaging in regular PA, heart disease and diabetes (CHD), changing behavior to reduce heart disease risk (BEH), and personal risk of developing heart disease (CR) and level of patient perceived provider support for physical activity (SUP). In the presence of demographic variables, more frequent CR interactions were more likely to achieve TE (X²w (1,132)=3.891, p<0.05, OR=1.661); more BEH discussions were less likely to obtain TE (X²w (1,132)=6.097, p<0.05, OR=1.913). CHD, PA and SUP were not related to TE.

These findings suggest that more frequent personalized PPIs, such as discussion of individual risks, increase the likelihood of a patient adopting self-management behaviors, whereas providing information or support alone is not sufficient. These findings also indicate that providers are spending more time in discussions about behavioral change with patients reporting less effective self-management of PA.

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CLINICAL SOCIAL COGNITIVE PHYSICAL ACTIVITY INTERVENTIONS

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We completed a randomized controlled trial that compared the effectiveness of a low-cost print intervention to a clinical group-visit intervention on self-reported physical activity (PA) and PA related self-efficacy, social support, and outcome expectations. Participants’ (n=120; M age=48.7±11.8; 62 percent Caucasian) physician referred them to the project. Both interventions were delivered over a 3-month period, based on social cognitive theory and targeted the use of self-monitoring, goal-setting, barrier identification & resolution, and enlistig support as primary strategies. Participants in the group-visit received the content during 2, 2-hour clinical visits and follow-up telephone counseling. Participants in the print condition received the content via mail in the form of: (1) a letter from their physician; (2) a workbook; and (3) materials on local resources for PA. Multivariate analyses of variance indicated a significant time effect at follow-up. All participants, regardless of condition, increased weekly minutes of moderate (p<0.01) and vigorous (p<0.01) PA. Significant time by condition effects were found that indicated participants in the group-visit condition more often to those setting a quit date. Among participants enrolled (N=444, mean age 43 years), 50.2% are White, 18.5% Black, and 16.2% Latino. The sample smoked an average of 22.79 (SD=11.16) cigarettes/day and endorsed high levels of nicotine dependence (FTND mean=6.7, SD=0.9), moderate levels of perceived stress (mean=5.7), and high levels of depressive symptoms (59% scoring ≥10 on the CESD). 38% consumed alcohol, 19% used marijuana, and 13% used other illicit drugs, compared to national rates of 59%, 6%, and 8%, respectively. Despite high comorbidities, 73% of participants set a quit date. Preliminary results suggest biochemically-verified seven-day quit rates at 6-month follow-up were not significantly different for ME (18%) compared to SC (19%). These rates were lower than those seen in clinical trials of patch vs. placebo, yet higher than rates observed with OTC patch use. Several explanations for an overall lack of difference between conditions will be discussed regarding psychosocial barriers to cessation in HIV+ patients, as well as barriers to implementation in medical settings.

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PATIENT PERCEPTIONS OF PHYSICIAN SUPPORT WITH PHYSICAL ACTIVITY BY INCOME

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This study examined patient perceptions of physician support with physical activity (PA) in a sample of Diabetes Expo attendees in Pittsburgh, PA. Income was examined as a possible moderator due to research that suggests growing inequalities in income and wealth portend growing socioeconomic inequalities in health. A total of 122 individuals with type 2 diabetes (T2DM) participated. Participants were predominantly female (69%), with a mean age of 57 ± 12 years, White (70%), and lower-middle class, with 53% of participants reporting an annual income range between $11,000-$40,000. Mean BMI was 33 ± 8 and participants reported a mean number of physician visits per year of 3.7 ± 1.7.

Income ranges were grouped into 3 levels - high ($41,000+), middle ($21,000-$40,000), and low ($0-$20,000). Results suggest that physicians talk more frequently to those in the high range than those in the low range (F=3.69, p<0.05). Results also suggest that exercising regularly is endorsed as beneficial and wise more so by those in the high range than those in the low range (F=3.35, p<0.05). Finally, results suggest that those in the high range reported engaging in more PA than those in the middle range (F=4.39, p<0.05). The relationship between the frequency physicians talk about PA and income was not moderated by the number of physician visits per year.

Income appears to affect patient perceptions of physician support with PA in participants with T2DM. These results suggest that physicians may need to make additional concerted efforts in disseminating knowledge and offering support regarding PA to patients with lower incomes.

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CHRONIC PAIN AND PERCEPTION OF LIFE CONTROL AMONG WOMEN SEEKING WEIGHT LOSS SURGERY

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We evaluated the relation of chronic pain and perception of life control with eating pathology and affective distress among 50 randomly selected female patients applying for weight loss surgery. Specifically, we investigated (1) whether self-reported pain level was associated with eating pathology; (2) if perceived life control affected self-reported pain level; (3) if perceived life control affected the frequency of physical complaints, pain distress, quality of life, depression, or anxiety; and (4) whether the perception of life control impacted frequency of emotional eating. Pre-operative measures included the West Haven-Yale Multidimensional Pain Inventory, the Binge Eating Scale, Impact of Weight on Quality of Life, and the SCL-90-R. Participants were mostly Caucasian (78%), married (74%), and had a partial college education. The average age was 44 and the average BMI was 49. Results showed that pain severity was not significantly associated with binge eating behavior or perceived life control. However, perceived life control was significantly correlated with more somatic complaints, affective distress from pain, depressed mood, and anxiety. Perception of life control was also associated with increased binge eating. Thus, the perception of life control among morbidly obese females with chronic pain may be relevant in understanding eating pathology. Further examination of chronic pain, life control, and eating behavior may be necessary in order to more effectively develop treatment plans among women seeking weight loss surgery.

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WEIGHT, EATING HABITS AND CHRONIC PAIN IN PATIENTS WITH SICKLE CELL DISEASE (SCD)

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Research has demonstrated a significant relationship between reported pain severity and weight. However, little is known about the influence of chronic pain on eating habits or weight in patients with Sickle Cell Disease (SCD). The present study examined the relation between pain, eating habits, and body mass index (BMI) in sixty-three adults with SCD (mean age 37.12, SD=11.67; mean BMI 25.93, SD=6.84). Twenty-seven percent of patients were overweight (BMI>25) and twenty-two percent were obese (BMI>30).

Fifty-seven percent of patients self-reported that pain did not affect their weight while eighty-seven percent reported that their weight did not affect their pain. Ratings of pain intensity were not correlated with BMI (p=ns). However, greater body mass was associated with greater pain interference (r=0.25; p=0.05). Eighty-seven percent of patients indicated that the quantity of food they consumed decreased during periods of increased pain, while thirteen percent indicated no change in their eating habits; no patients increased food consumption in response to pain. These findings suggest that increased chronic pain in patients with SCD may decrease the quantity of food consumed, however, not so much as to significantly alter weight. Future studies should evaluate changes in macronutrient intake as well as weight in response to pain.

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ROLE OF MOOD IN BIOFEEDBACK-ASSISTED RELAXATION THERAPY IN TYPE 2 DIABETES

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In persons with Type 2 Diabetes Mellitus (DM), mood affects self-care behavior and glycemic control; depressed patients have poorer control. Since self-care of DM is demanding for even non-depressed persons, studies of interventions that increase sense of control as well as decreasing blood glucose (BG) are needed. Surwit et al (2002) tested a stress management education program in a controlled design in non-depressed subjects. Significant decreases in glycohemoglobin (HBA1C) were found in the treatment group at one year. This study addresses the effects of 10 one hour sessions of biofeedback/relaxation intervention (BFRT; muscle tension, thermal feedback and relaxation training) compared to an education control group. Comparisons were made between baseline (4 weeks) and post BFRT/control (4 weeks). Nine of 39 subjects dropped out before completing study requirements; those subjects had higher depression scores (BDI-II) compared to the scores in the 30 subjects who finished the study. Average BG and hemoglobin values were significantly different between the BFRT and education groups (p<0.05). The BFRT group decreased average BG from 150 mg/dl to 134 mg/dl (p=.001), and HBA1C from 7.3% to 6.8% (p=.01). The education group was essentially unchanged. HBA1C values were significantly correlated with depressive symptoms. At three months post BFRT, mean BG was 133 mg/dl. Our results support Surwit (2002), despite differences in protocol and sample. BFRT provides subjects with a sense of control over physiological responses to stress, which may translate into less depression, better self-care and improved glycemic control.

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B-113

BIRTH WEIGHT IS RELATED TO BODY COMPOSITION IN TEENS

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Background: Obesity in youth is a growing problem. Prior studies demonstrated that low birth weight has a detrimental affect on health throughout life. Our objective was to examine the relationship between birth weight and body composition in teenagers.

Subjects: We collected birth information, including birth weight on 29 teenagers, aged 15 to 18 years. Of the 29, 15 were girls and 14 were boys, 18 were white and 11 were black. The subjects had duel energy X-ray absorptiometry scans to determine lean body mass, fat mass and percent body fat.

Results: Birth weights ranged from 2155 grams to 4740 grams. Mean birth weight was 3374±667 grams. Mean lean body mass was 47±10 kg and mean percent fat was 25±10 kg. Correlations were run between birth weight and measures of body composition. Birth weight was positively correlated with lean body mass (r=0.47; P=0.005) and negatively correlated with percent body fat (r=-0.43; 0.01).

Conclusion: While the sample size is still relatively small, the correlations are very strong. Results show that a higher weight at birth is associated with greater lean body mass and less body fat as early as the teenage years. In contrast, lower birth weight is associated with increased body fat. Increased body fat at younger ages is associated with obesity later in life, as well as many other health problems.

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PARENTAL PERCEPTION OF CHILDREN’S WEIGHT IN PEDIATRIC PRIMARY CARE

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Background: Pediatric obesity is a problem with significant health consequences for children. Parental recognition of children’s overweight status is intrinsic to the success of clinical and public health interventions to reduce the prevalence of pediatric obesity.

Aim: The study aim was to determine the accuracy of parents’ perceptions of their overweight children’s weight status.

Methods: The descriptive, cross sectional study was conducted in two community pediatric practices and involved completion of questionnaires by parents of 3 to 12 year old children assessing their perception of their child’s weight. Children’s BMI was measured and plotted on gender- and age-specific charts. Parental responses were compared to children’s actual weight status.

Results: Questionnaires and BMIs were collected at 616 pediatric visits (281 girls, 335 boys). Overall, 15% of boys were at risk for overweight (85th to 94th percentile) and 22% were overweight (≥95th percentile) compared to 15% and 25% of at-risk and overweight girls. Forty-nine percent of parents accurately recognized that their overweight children were overweight. Perceptions were more often correct for overweight girls than boys (63% vs. 29%, P<.001) and for older (6 to 12) compared to younger (3 to 5) children (62% versus 17%; P<.001). Only 8% of mothers of at-risk children recognized that their child’s weight was above the normal range.

Conclusions: Parental recognition of children’s weight is an important issue in primary care management and intervention. The results indicate that parental perceptions are often significantly different from actual weight status. Early case identification is an important issue in primary care management and intervention. The results indicate that parental perceptions are often significantly different from actual weight status.

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EVALUATION OF OBESITY INTERVENTIONS IN PEDIATRIC PRIMARY CARE UTILIZING RE-AIM EVALUATION CRITERIA

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Childhood obesity has reached epidemic proportions. Rates of children/adolescents classified as overweight/obese have tripled over two decades. Early onset of obesity creates far reaching health consequences in adulthood. Given that children visit their primary care physicians about once each year, interventions in these settings may have substantial potential for reach and cost-effective implementation. We identified primary care-based interventions targeting obesity in children and adolescents utilizing RE-AIM (Reach, Effectiveness, Adoption, Implementation, Maintenance) criteria. Search terms included primary care, child, diet/obesity were entered into MEDLINE, PsyCINFO & CINAHL search engines. Searches yielded 149 total “hits” which were assigned to three categories: Empirical Interventions (n=44), Descriptive (n=34) or Theoretical/Other (n=111). Empirical Intervention studies were evaluated using RE-AIM criteria. Interventions varied by type and intensity, all assessing diet and physical activity behavioral outcomes and age adjusted BMI. All interventions were initiated in primary care settings, but only two studies were carried out entirely within those settings. Reach could not be calculated in any of the reviewed studies. Adoption rates of the intervention among practices ranged from 13-100%. Rates of intervention completion ranged from 67-90%, with only two studies presenting characteristics of non-participants/completers. Results delineating procedures of intent to treat and imputation were presented in findings of only one study. Findings of reviewed studies support overall feasibility and effectiveness of interventions based in pediatric primary care settings. Information provided by components of the RE-AIM criteria assist in the identification of mechanisms of change crucial to developing effective primary care-based childhood/adolescent obesity interventions.

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FEATURES OF ILLNESS WORRY AND HYPOCHONDRIASIS - RESULTS FROM THE GERMAN HEALTH INTERVIEW AND EXAMINATION SURVEY (GHS)

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Hypochondriasis is regarded to be very relevant in the health care systems, whereas the prevalence in the general population is still almost unknown. The aims of this study were to assess prevalence and features of hypochondriasis and its subthreshold conditions in a representative sample of the general population.

Analyses were based on the German Health Survey – Mental Health Supplement. A total of 4,181 subjects, aged 18 to 65 years (response rate 87.6 %), were assessed with structured interviews of somatic (CAPI) and of mental disorders (M-CIDI), and with self-reports on quality of life (SF-36), health care utilization, sick-leave days and physical activity.

Only 2 cases met full criteria of DSM-VI hypochondriasis, resulting in a weighted 12-months prevalence rate of 0.05%. The prevalence rate of “abridged hypochondriasis” was 0.58%, and of “persistent illness worries” 2.12%. The subthreshold illness worry groups provided strong evidence to be much more impaired than non-hypochondriac controls: comorbidity with psychiatric and medical disorders was higher (p < .001), quality of life was significantly lower (p < .001), and health care utilization and illness behavior exceeded the one of controls (p < .001).

The results provide additional support to not only consider “full” DSM-IV hypochondriasis, which seem to be very rare in the general population, but also less restrictive conditions (criteria). Even persistent illness worries showed to be of high relevance. Early case identification is an important issue in primary care management to prevent chronic conditions, which become more refractory to treatment.

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PSYCHOSOCIAL CORRELATES OF CARPAL TUNNEL SYNDROME: A CASE-CONTROL STUDY
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Carpal tunnel symptom (CTS) is a common condition affecting 3.1 percent of the US population. Preliminary studies have identified biological and work variables as being potential risk factors for CTS. Few studies, however, have examined psychosocial variables, and these studies have frequently utilized non-specific measures of psychosocial functioning (e.g., generalized distress) rather than specific measures (e.g., anxiety, depression, somatization) which have greater import for behavioral medicine interventions. This purpose of this study was to investigate a number of psychosocial variables as potential correlates of CTS. Using a case-control methodology, 87 patients diagnosed with CTS (i.e., clinical symptoms with electrodiagnostic confirmation) were compared with 74 gender-matched control patients from the same clinic (i.e., orthopedic patients without CTS symptoms or electrodiagnostic abnormalities). Participants completed a self-report questionnaire which included measures of depression, anxiety, somatization, health locus of control, job satisfaction, and mental and physical functioning. The results of univariate analyses suggested that CTS participants endorsed significantly higher (p < .05) levels of anxiety, depression, somatization, powerful other health locus of control beliefs, and significantly lower levels of job satisfaction and mental and physical health functioning. In a multiple logistic regression analysis, measures of job satisfaction and physical health functioning were statistically significant predictors of CTS, with adjusted odds ratios of .92 and .70, respectively. These findings add to the clinical utility of past CTS psychosocial research and provide evidence to support the need for further research with larger samples.

B-120
PTSD SCREENING IN NEWLY-DIAGNOSED BREAST CANCER PATIENTS
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The purpose of this study is to describe the prevalence of PTSD symptoms in a sample of newly-diagnosed breast cancer patients and to examine the physical and psychological differences between patients with and without PTSD symptoms. New breast cancer patients (N=93, mean age=57, 96% Caucasian) completed a screening questionnaire documenting physical and emotional health history. PTSD was measured with the PC-PTSD, a new 4-item screen developed by Prins and colleagues (2003) for use in medical populations. PTSD symptoms were endorsed by 17% (n=16), a higher percentage than found in other anxiety disorders or depression. While chi-squares examining the relationships between PTSD and GAD and panic were significant, the overlap between PTSD and depression was not. Patients with and without PTSD symptoms scored statistically similarly on the Distress Thermometer, but the PTSD group evidenced worse functioning on both scales of the SF-36 [physical (t91)=4.65, p<.01, mental health (t91)=3.97, p<.01]. As this screening is now part of routine clinical practice, final data will be presented on approximately 200 patients. Results already reveal that a significant proportion of patients have difficulties with PTSD symptoms, and that those with PTSD symptoms have more functional difficulties early on in their treatment. These findings suggest that an important area of patient care, one that has been largely unexamined to date, is the need to consider the impact of PTSD symptoms on breast cancer treatment and recovery.

B-119
AN EXAMINATION OF SPECIFIC AND GENERAL EXPECTANCIES AS PREDICTORS OF CHEMOTHERAPY-INDUCED NAUSEA
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A regression analysis was used to explore the relationship of specific and generalized response expectancies, i.e., optimism, and the subsequent occurrence of nausea in a homogeneous group of 194 female breast cancer patients receiving adriamycin-based chemotherapy. These patients were randomized to the control group in a large multi-center trial. Expectation of developing nausea was measured on a 5-point Likert-scale, anchored at one end by “1” = “I am certain I WILL NOT have this,” and at the other end by “5” = “I am certain I WILL have this.” Optimism was assessed by the LOT-R. Nausea severity was assessed using a five-day diary following patients’ first chemotherapy treatment with the question, “How would you describe the NAUSEA at its worst?” from “0” to “6” with “0” = no nausea and “6” = “intolerable”.

Result: Regression analysis showed that level of optimism was not a significant predictor of either average or peak nausea in these patients whereas expectancy for nausea, even after controlling for optimism, was a significant predictor of both, (R2changeaverage nausea = 0.03, p = 0.03; R2changepeak nausea = 0.04, p = 0.006).

Conclusion: As in our companion abstract (Shelke et al.) that examined a different patient sample, a specific expectancy for the development of nausea predicted subsequent nausea but general expectancy as assessed by the LOT-R did not.

B-121
POSTTRAUMATIC GROWTH, IMMUNITY, AND SURVIVAL IN PATIENTS WITH HEPATOCELLULAR CARCINOMA
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The aims of the study were to test the relationship between posttraumatic growth (PTG), immunity, and survival in patients diagnosed with hepatocellular carcinoma (HCC). Forty-one patients with HCC completed a battery of questionnaires that included the posttraumatic Growth Inventory (PTGI). Female patients who scored below the median on the PTGI total score were found to benefit, in regard to survival, when compared to men, who they reported higher levels of PTG. Further research with a larger sample size and additional measures of neuroendocrine and immune functioning (e.g., cortisol, NK cell) are warranted to understand the possible relationship between PTG and survival.

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THE INFLUENCE OF THE PHYSICIAN-PATIENT RELATIONSHIP ON QUALITY OF LIFE, PSYCHOLOGICAL ADJUSTMENT, AND SATISFACTION IN CANCER PATIENTS

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PURPOSE: The objective of the present study was to examine the influence of the physician-patient relationship on the cancer patient’s quality of life, psychological adjustment, and satisfaction. Predictor variables included desire for control over health care, self-efficacy, and physician communication style.

METHODS: Ninety-one cancer patients receiving chemotherapy at the Massey Cancer Center were consented for the study. Prior to consultation, participants completed the Krantz Health Opinion Survey, the Perceived Health Competence Scale, and the Profile of Mood States-Anxiety and Depression scales. After consultation, patients receiving chemotherapy completed the Profile of Mood States-Anxiety Scale, the Perceived Physician’s Communication Style Inventory, the Quality of Life Inventory and a Satisfaction with Care Scale.

RESULTS: High desire for control significantly predicted positive quality of life and satisfaction. Greater levels of self-efficacy significantly predicted positive psychological adjustment. Patients who perceived a collaborative partnership with their oncologists were the most satisfied with their care and support. Desire for control over health care moderated the effects of physician communication style on quality of life and satisfaction. Self-efficacy moderated the effects of physician communication style on psychological adjustment.

CONCLUSION: Increasing the cancer patient’s control over health care decisions or enhancing their self-efficacy promotes higher levels of quality of life, psychological adjustment, and satisfaction. Incongruities between patients preferred and achieved decision-making roles were related to poorer health outcomes. Therefore, physicians should tailor their communication style to patients’ desired level of control over decision-making rather than aim for overall increased patient participation in treatment decisions.

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RELATIONSHIPS BETWEEN CANCER-RELATED FATIGUE (CRF), PHYSICAL ACTIVITY (PA), AND IMMUNE FUNCTION (IF) AMONG BREAST CANCER PATIENTS

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Purpose: Shared decision making is advocated for localized prostate cancer treatment decisions, but physician-patient communication problems, especially with minority patients, raise concerns about the effectiveness of this process in clinical settings. We examined agreement between urologists and their respective localized prostate cancer patients regarding key elements of the shared decision making process: patients’ concerns about treatment outcomes, beliefs about chance of cure, and information preferences.

Methods: Consecutive newly diagnosed localized prostate cancer patients at the Philadelphia VA and their respective urologist (N=68 matched urologist-patient pairs) each completed a survey reporting the patient’s treatment concerns, beliefs and information preferences after discussing the diagnosis and treatment options. Results: Urologists underestimated their respective patients’ concerns about chance of cure, impotence and incontinence (p<.0001, p=.08, p=.10 respectively) as well as general desire for medical information and for information about the diagnosis and treatment options (p<.0005, p=.001 respectively). Relative to their respective urologists, patients misjudged their chance of cure from most treatment options (p<.075 for all but watchful waiting). Urologists’ underestimations regarding concern about impotence and chance of cure and desire for information were greater for Black than White patients (p=.02 for all).

Conclusion: The two-way exchange of information between physicians and patients that is critical to the shared decision making process is incomplete. Patients, and especially Black patients, may receive treatments that do not match their individual values and preferences.

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B-125

MAKING TREATMENT DECISIONS FOR LOCALIZED PROSTATE CANCER: ARE PATIENTS AND THEIR UROLOGISTS ON THE SAME PAGE?

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B-126

THE INCREASE IN KNOWLEDGE FOLLOWING BREAST CANCER GENETIC COUNSELING IS LOWER FOR WOMEN WITH MORE EMOTIONAL DISTRESS ON THE DAY OF THE SESSION

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An increasing number of individuals are participating in genetic testing for inherited breast cancer risk. These individuals have to comprehend and retain complex information important both to themselves and close family members. Since emotional distress has been shown in other contexts to adversely affect learning processes, we hypothesized that genetic counseling would be less effective for women with higher levels of distress prior to the session. Women with family histories of breast cancer were recruited (n=167; 79% Caucasian; mean age 49.2) and completed a breast cancer knowledge questionnaire approximately 2 weeks before, and 4 weeks after, their genetic counseling session. Emotional distress levels were assessed by self-report (Profile of Mood States) prior to the counseling session. Confirming the benefits of counseling, there was a significant increase in breast cancer knowledge from before to after the session (p<0.01), but there was wide variability in the magnitude of the gain. Consistent with the study hypothesis, the women’s distress levels prior to the session were negatively related to their increases in knowledge, even after controlling for effects of qualification level and minority status. The findings suggest the potential utility of psychological interventions to reduce distress levels prior to genetic counseling.

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INVESTIGATING THE FEASIBILITY OF AN ONCOLOGY CONFERENCE MODEL IN CRITICAL CARE

Sarah M. Rausch, M.S., 1 Lillian F. Stevens, M.S., 1 Jennifer Berry, 1 and Stephen Auerbach, Ph.D. 1

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Having a family member critically injured is an extremely stressful experience. The primary identified need of family members in the ICU is to have clear information about the status and care of their injured relative. However, family members are rarely satisfied with the information they receive. In the oncology setting, providing personal copies of audiotapes of physician-patient conferences is a common procedure used and has been evaluated by oncology patients as useful to themselves and their families, has consistently improved recall of information and satisfaction with their communication, and appears to facilitate reprocessing of the complex information. This model has not been applied to a critical care setting, thus, we are currently evaluating the feasibility of adapting this model to critical care by: (1) setting up conferences with the attending critical care physician and the family representative in the crucial early stage of the patient’s hospitalization; (2) audiotaping the conference and providing families with a copy of the audiotape; and (3) procuring the cooperation of the physician and family representative in filling out self-report measures after the conference to evaluate the effectiveness of the procedure. Preliminary results from 19 conferences with physicians and family representatives (68% African American, 32% Caucasian; 78% female) have indicated that the oncology conference model is feasible in a critical care setting. Qualitative analyses of family representative feedback have also indicated that this model is highly valued, and has provided a wide array of benefits to families, as well as the healthcare team.

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B-129

TALKING TO THE EXPERTS: USING THE CRITICAL INCIDENT TECHNIQUE TO DEVELOP A SYMPTOM MANAGEMENT INTERVENTION FOR MEN WITH LOCALIZED PROSTATE CANCER

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Prostate cancer management is associated with significant physical and psychological treatment-related symptoms. Educators developing new interventions face a dilemma – where to start? Surveying existing programs? Talking to healthcare providers? Another approach is to talk to experts in managing symptoms – the patients themselves.

In this presentation, we report on a study using the Critical Incident Technique (CIT) to understand symptom management in localized prostate cancer patients. The CIT is an inductive technique that can be used to understand patient behaviors, skills, and knowledge. Several interventions developed using the CIT have shown improvement in symptom management practices and reductions in symptom burden in controlled trials. Eleven patients and 6 healthcare professionals participated in CIT interviews. Trained interviewers helped identify effective and ineffective behaviors, skills, and knowledge used to manage the treatment-related symptoms of localized prostate cancer. These sessions generated 49 incidents. The CIT was used to develop a taxonomy of symptom management competencies. Symptoms discussed included hot flashes, bodily pain, fatigue, edema, sleep interruption, urinary and bowel incontinence, and erectile dysfunction. Symptom management included approaches ranging from behavioral strategies to provide immediate relief to symptom burden in controlled trials.

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CONDITIONED FATIGUE IN CANCER PATIENTS RECEIVING ADJUVANT CHEMOTHERAPY FOR BREAST CANCER INDEPENDENT OF CONDITIONED NAUSEA AND DISTRESS
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Conditioned fatigue responses (CFR) have been reported to develop during cancer chemotherapy, as evidenced by a pattern of increasing pre-infusion fatigue in the clinic (conditioned stimulus) across repeated infusions (unconditioned stimulus), and by significant relationships between CFR and the severity of prior experiences of post-infusion fatigue (unconditioned responses). The present study examined the specificity of CFR relative to conditioned nausea and emotional distress, previously documented in chemotherapy patients. Participants (n=65; 80% white; 75% married; 62% Stage I) were scheduled for a standard chemotherapy regimen (77% CMF). Post-infusion side effects were assessed with the Memorial Symptom Assessment Scale. Fatigue, nausea, and distress levels prior to the 5th infusion were assessed in the clinic with visual analog scales. Consistent with selective conditioning effects, general linear modeling analyses revealed significant (p<.05) relationships between patients’ previous experiences of the specific unconditioned response (mean post infusion fatigue scores) and CFR even after controlling for: 1) levels of fatigue in the clinic prior to the first infusion (baseline), 2) patients’ experiences of the other unconditioned responses (post infusion nausea, distress), 3) concurrent levels of conditioned nausea and distress responses in the clinic, 4) fatigue on the night before the 5th infusion. Similar selective relationships were seen for conditioned nausea and distress. Together these results indicate selective specific conditioning processes for distinct side effects of chemotherapy treatment including fatigue, the most commonly reported side effect with the strongest negative impact on quality of life.
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NEUROCOGNITIVE MORBIDITY IN PATIENTS WITH SICKLE CELL DISEASE
Stephanie Johnson, Ph.D.,1,2,3 Christopher L. Edwards, Ph.D.,1,2,3 Miriam Feliz, Psy.D.,1,2 Patrick Logue, Ph.D.,2 M. O. Harrison, M.D.,1 LaToya Hall, B.S.,4 Mary Wood, M.A.,1,2 Goldie Byrd, Ph.D.,1 Jude C. Jonassaint, R.N.,2 and Laura DeCastro, M.D.5
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African American patients with Sickle Cell Disease (SCD) suffer much physical morbidity to include aseptic necrosis, pulmonary complications, fatigue, and brain injury secondary to cerebrovascular events (CVEs). Of these, the functional consequences of brain injury are least understood and studied in this population. There is increasing interests in understanding neurocognitive morbidities and functional capacities in patients with SCD. We evaluated patterns of neurocognitive and physical functioning among fifty men (22) and women (28), mean age 38.93 (13.51) with SCD.
Of patients with SCD, forty-four percent reported difficulties with concentration and focus while thirty-eight percent reported difficulties with “thinking” or processing complex tasks. Forty-four percent of patients also reported difficulties with vertigo or balancing to stand or walk without assistance. Twenty-six percent reported difficulties with memory while ten percent reported difficulties with aphasia. Fourteen percent reported difficulties with vision and six percent with hearing. Functionally, fifty-two percent of patients reported difficulties shopping for themselves, and forty-six percent dressing and undressing without assistance. Thirty-two percent reported difficulties bathing and twelve percent eating without assistance. Neurocognitive morbidity did not have an impact on reports of chronic pain. The authors conclude that cognitive rehabilitation and occupational and physical therapy may have increased utility in patients with SCD as we begin to better understand the cognitive consequences of the disease.
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Thursday
April 14, 2005

Symposium #1 9:00 AM–10:30 AM
TRUST AND THE MEDICAL ENCOUNTER IN DIVERSE POPULATIONS
Discussant: Thomas LaVeist, Ph.D., Johns Hopkins Bloomberg School of Public Health
It is widely accepted that a patient’s trust in the motivations, intentions, and competence of his physician is a central element of the patient-physician encounter. Trust represents an interpersonal dynamic between patient and physician that has been shown to affect patient outcomes, such as adherence to medical recommendations, healthcare utilization, and evaluations of care. This interpersonal dynamic may be influenced by a social context in which certain racial/ethnic groups often experience poorer quality treatment in healthcare settings. Thus, trust, or lack of trust, may account for racial/ethnic health disparities resulting from low healthcare involvement and medical adherence. The goal of this symposium is to present research examining trust and patient-physician interaction in order to 1) highlight diverse methodological approaches to studying trust and the medical encounter, and 2) identify components of the medical encounter that may be appropriate targets of interventions addressing trust. Dr. Boulware will present findings on the association between trust in physician and patient-physician discussion about organ donation, a critical public health issue. Dr. Thom will discuss the effect of primary language on trust in a primary care population of European Americans, Latinos, and Asian Americans. Dr. Jacobs will present the results of a qualitative study of the determinants of patient trust among African American and Latino adults. Finally, Dr. LaVeist will review and integrate these data.
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Symposium #1A

TRUST IN PHYSICIANS AFFECTS MEDICAL DISCUSSIONS REGARDING ORGAN DONATION

L. Ebony Boulware, M.D., M.P.H., 1 Misty U. Troll, M.P.H., 1 and Neil R. Powe, M.D., 1

1Welch Center for Prevention, Epidemiology and Clinical Research, Johns Hopkins Medical Institutions, Baltimore, MD.

Background: Patient-physician discussion (PPD) regarding organ donation represents an important way this sensitive issue can be addressed prior to patients’ deaths, but it is unclear what factors affect discussion.

Methods: In a study of 377 persons from the general public, we assessed trust in physicians (“I trust my physician to put my medical needs above all other considerations.”) and comfort with PPD (“How comfortable do you feel discussing organ donation with your primary care physician?”). Persons identified as organ donors on their drivers’ licenses were considered willing donors. We used logistic regression to determine the relation of trust to comfort with PPD and comfort with PPD to willingness to donate, while controlling for respondent sociodemographics.

Results: Participants’ mean (SD) age was 44(14) years, 264 (70%) were female, 309 (84%) were non-Hispanic White, and 33 (9%) were non-Hispanic Black. Over half (64%) were willing organ donors, most (81%) were “very comfortable” with PPD, and most (75%) “completely” or “mostly” trusted physicians. Persons expressing more (versus less) trust were more comfortable with PPD (adjusted percent comfortable (95% CI): 88 (83-91) vs. 65 (54-75), p<0.01), and persons more (versus less) comfortable with PPD were more likely to be willing organ donors (adjusted percent willing (95% CI): 72 (66-78) vs. 48 (35-61), p<0.01) after adjustment.

Conclusions: Trust is related to comfort with PPD, and comfort with PPD is related to greater willingness to donate organs. Enhancement of trust in physicians may encourage greater comfort with PPD and enhance willingness to donate.

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Symposium #1B

DO DIFFERENCES IN PRIMARY LANGUAGE EXPLAIN DIFFERENCES IN LEVELS OF PATIENT-PHYSICIAN TRUST AMONG EUROPEAN AMERICANS, LATINOS AND ASIAN AMERICANS?

David H. Thom, M.D., 1 and Miguel D. Tirado, M.D. 2

1Department of Family and Community Medicine, University of California, San Francisco, San Francisco, CA; and 2California State University, Monterey Bay, Seaside, CA.

Background: To investigate the relative importance of ethnicity and language in explaining differences in levels of trust in physician among Latino and Asian-American patients compared to European-American patients.

Methods: The study sample consisted of 424 patients from 4 practice sites. Participants were 26.4% European-American, 21.9% Latino, and 17.5% Asian-American. A primary language other than English was reported by 31.5% of participants. Patient trust, measured by the trust subscale of the Primary Care Assessment Survey and converted to a 0 to 100 scale, was the dependent variable. Patient race/ethnicity and primary language were the primary independent variables.

Results: Participants whose primary language was English reported higher trust scores than those with a primary language other than English (80.8 v 73.4, p=0.002). Mean trust scores were highest in European-Americans (81.1) followed by Asian-Americans (77.1) and Latinos (74.6), though the difference was only significant for European-Americans vs. Latinos (p=0.028). After adjustment for primary language using ANOVA, the means were nearly identical between European-Americans (79.3) and Asians (79.4) but remained lower among Latinos (75.2), though this difference was no longer significant. Analyses controlling for additional variables including age, gender, education, birth in the U.S., language of the questionnaire, and physician did not substantially change the comparison.

Conclusions: The lower level of trust among Asian-Americans was largely explained by differences in primary language, while the lower level of trust among Latino patients was only partially explained by differences in primary language.

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Symposium #1C

AFRICAN AMERICAN AND LATINO VIEWS OF THE TRUSTWORTHINESS OF HEALTHCARE

Elizabeth Jacobs, M.D., 1 I. Rolle, 1 Gabriela Juarez-Dominguez, 2 Carol Ferrans, 1 and Richard Warnecke. 1

1Collaborative Research Unit, Cook County Hospital, Chicago, IL.

BACKGROUND: An abundance of research has documented disparities in health and healthcare between ‘Minorities’ and Caucasians, yet the reasons for disparities are still not clearly understood. One possibility is that minority patients are less trusting of physicians and healthcare institutions and less likely to seek or accept care.

METHODS: Nine focus groups with African American patients (18-73 yrs; n=66) and five focus groups with Latino patients (18-73; n=38) were conducted. Participants were recruited from two public clinics and two non-profit community organizations. Culturally and linguistically appropriate moderators facilitated all groups. Discussions were audio-taped, transcribed and coded for interpretation using grounded theory analysis.

RESULTS: Both African Americans and Latinos viewed physicians and health care institutions as less than trustworthy, but for different reasons. African Americans were distrustful because they feared that they would be experimented on and discriminated against while seeking routine healthcare. Latinos also believed they were discriminated against in healthcare settings, but because they had difficulty speaking English. They also did not trust care from physicians and healthcare institutions that did not provide linguistic access because they did not believe their caretakers would be able to adequately diagnose their problems and explain their treatments. Both groups described avoiding care and declining treatment as a result of distrust.

CONCLUSION: African Americans and Latinos view healthcare as untrustworthy due to fear of discrimination, experimentation and lack of adequate communication. This distrust impacts decisions about seeking and accepting healthcare.

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Symposium #2

9:00 AM–10:30 AM

ADVANCES IN QOL ASSESSMENT FOR CLINICAL PRACTICE

Discussant: John Ware, Jr., Ph.D., QualityMetric Incorporated & Health Assessment Lab

A growing body of research suggests that clinicians find quality of life (QOL) information difficult to integrate into the clinical encounter because of logistic difficulties (e.g., How to collect/score data quickly?), interpretation issues (e.g., What do they mean?), and unclear application (e.g., How do I use them?). Advances in item response theory (IRT) and computerized adaptive testing (CAT) have yielded tools that select the most informative items for an individual’s level of functional health, and minimize respondent burden while maximizing the precision and responsiveness of the information collected. As the science of dynamic assessment develops, both the advantages and challenges of this new era of research become more apparent.

We will present three dynamic assessment case studies and discuss their implications. We will first describe results from a pediatric CAT study, demonstrating reduced respondent burden and high levels of acceptance among surrogates reporting on children age 6 months to 18 years, but some clinician distrust of results. Second, we will describe results of a chronic kidney disease CAT study, documenting psychometric gains and a need to adapt the technology to meet the physical challenges of this population and clinical setting. Third, we will describe results from a diabetes CAT study, comparing results from English- and Spanish-speaking patients and showing that despite some gains, there may be substantial differences in CAT performance and feasibility due to cultural and/or literacy differences. Report technology and directions for research will be discussed.

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Annals of Behavioral Medicine

Symposium #2A

A IMPROVING FUNCTIONAL ASSESSMENT OF CHILDREN IN CLINICAL PRACTICE: A CAT VERSION OF THE PEDI

Anastasia E. Raczek, M.Ed.1

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Approximately 5 million children in the United States experience disability, defined as limitation in daily activities. This presentation will describe the results of an effort to improve children’s functional outcome assessment by applying Computer Adaptive Testing (CAT) technology. We developed a computerized adaptive application called PEDI-CAT, based on the widely-used Pediatric Evaluation of Disability Inventory (PEDI), a 217-item assessment typically completed by a rehabilitation therapist, teacher, physician, or parent. Both PEDI-CAT and the PEDI were administered surrogates reporting on 80 children (6 months-18 years) (39 with disabilities, 41 without). Results confirmed the strong correspondence between forms; for the total sample, as well as within norm and clinical sub-samples, the correlation between scores from the two forms was 0.98 (p<0.0001). The PEDI-CAT produced great decreases in respondent burden, requiring about 15% of the number of items and 21% of the administration time of the full survey. Clinical respondents tended to prefer the CAT to the paper-and-pencil survey. 82% said the full-length survey asked more irrelevant questions, and 82% considered it more burdensome. Sixty-two percent replied that they would be more willing to use the CAT for future administrations. Respondents did not report difficulty using the technology. However, several rehabilitation clinicians, who had previously used the lengthier PEDI in their practice, seemed concerned about accuracy of the PEDI-CAT because it was so brief. We have demonstrated that comparable accuracy can be achieved at significant reductions in respondent and clinician burden by using CAT. Implementing CAT for functional and HRQUAL assessment in clinical practice holds benefits, but may require an educational component to ensure that clinicians trust the results.

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Symposium #2B

CAT ADMINISTRATION OF OQL MEASURES: LESSONS LEARNED FROM HEMODIALYSIS PATIENTS

Renee N. Saris-Baglama, Ph.D.1, Anastasia E. Raczek, M.Ed.1, John E. Ware, Jr., Ph.D.1, Klemens B. Meyer, M.D., 2 Michelle M. Chapman, Pharm.D.,2 and Asha P. Masurekar, B.A.3

1QualityMetric Incorporated, Lincoln, RI; 2New England Medical Center, Boston, MA; and 3Dialysis Clinic, Boston, MA.

Generic and disease-specific static forms that assess health-related QOL among chronic kidney disease (CKD) patients often lack the precision to detect individual changes over a wide range of scores. Longer forms may be more precise but are more costly and burdensome to administer. To address these issues, we used item response theory and computerized adaptive testing (CAT) methods to develop a prototype application (CKD-CAT) based on three scales (Sleep, Pain, and Quality of Life) and field-tested it among a sample of 49 hemodialysis patients. The static survey (25%), demonstrating its clinical acceptability. We conclude that CAT is a feasible alternative to static surveys among hemodialysis patients but technology must be adapted to meet their needs and characteristics.

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Symposium #2C

CULTURAL CHALLENGES IN DEVELOPING A DIABETES CAT TOOL FOR HISPANIC AND NON-HISPANIC PATIENTS

Carolyn E. Schwartz, Sc.D.,1,2,3 Garry Welch, Ph.D.,4 and Paula Santiago-Kelly,4

1QualityMetric Incorporated, Waltham, MA; 2Health Assessment Lab, Waltham, MA; 3Dept. of Medicine, Univ. Massachusetts Medical School, Worcester, MA; and 4Baystate Medical Center, Springfield, MA.

Diabetes is a leading cause of death and disability in the US and is twice as common among Hispanic Americans as non-Hispanics. The societal costs of diabetes provide an impetus for developing tools that can improve patient care and prevent diabetes complications. We implemented a feasibility study of a Computerized Adaptive Test (CAT) to measure diabetes impact using a sample of 103 English- and 97 Spanish-speaking patients (mean age=56.5, 66.5% female) in a community medical center with a high proportion of minority patients. Items were translated using forward-backward translation and cognitive debriefing. Participants completed both the paper-and-pencil full-length form (37 items) and the CAT in the patient’s native language and in random order. Results showed respondent burden for the CAT was six-fold less than the full-length tool in both languages (p<0.001), across disease severity. In the English sample, the Diabetes CAT demonstrated construct validity in correlations with the Problem Areas in Diabetes scale (r=0.71) and the SF-12 (rPC=0.52, rMC=0.68), and validity in discriminating levels of glycemic control (p<0.02). In contrast, the Spanish findings for both full-length and CAT showed lower construct validity, and discriminant validity was not supported (p>0.30). Twice as many Spanish participants provided internally inconsistent data. We conclude that despite comprehensive translation efforts, the Spanish Diabetes tools functioned differently than the English tools, and speculate that education and health literacy may influence their feasibility in low-literacy populations. Modifications to enhance the viability of static and dynamic tools in Hispanic patients may be warranted.

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Symposium #3

EFFECTS OF SPIRITUALITY-BASED INTERVENTIONS AND MEANING ON HEALTH

Discussant: Doug Oman, Ph.D., Public Health Institute

The potential importance of religious and spiritual issues to many individuals, particularly those facing health crises, is increasingly receiving recognition. This symposium explores aspects of religion and spirituality in the context of serious illness. First, Crystal Park will describe the results of a longitudinal study of the influences of religion/spirituality and meaning on health-related quality of life in a sample of older congestive heart failure patients. Results indicate that meaning exerts stronger effects on quality of life than does spirituality and partially mediates the effects of spirituality. Second, Jill Bormann will describe the efficacy of an intervention involving teaching mantram repetition (i.e., a word or phrase with spiritual meaning) relative to a control group on coping, distress, and quality of life in a sample of HIV-infected adults. Results show support for a mantram repetition intervention for improving positive appraisal coping and stress management. Finally, Jean Kristeller will present evidence from her programmatic research investigating physician attitudes toward addressing spiritual concerns (i.e., Time Concerns; Role Concerns; Low Confidence; Patient Reactions) and the results of two intervention studies with cancer patients involving training oncologists in the OASIS (Oncologist Assisted Spirituality Intervention Study) protocol, designed to address these concerns. In these studies, patients reported improvements in depression and quality of life. Doug Oman will serve as discussant. Drawing on his expertise in studies of religion/spirituality and health, he will summarize the common themes across these studies and describe implications both for future research and for practice.

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Symposium #3A
MEANING IN LIFE MEDIATES INFLUENCE OF SPIRITUALITY ON HEALTH IN CONGESTIVE HEART FAILURE PATIENTS
Crystal L. Park, Ph.D.,1 and Juliane R. Fenster, M.P.H.1
1Psychology, University of Connecticut, Storrs, CT.

Various aspects of religiosity and spirituality have been shown to favorably influence health. Evidence is strongest for attendance at services, although personal aspects of spirituality and religious coping appear related as well. Less is known about how a sense of meaning in life is related to health and well-being. The present study examines life meaning and spirituality in the context of chronic illness and tests the hypotheses that meaning in life is related to HRQOL and that life meaning mediates relations between spirituality and religious variables on HRQOL. 202 congestive heart failure patients (95% men, 5% women, mean age of 65) from the Cincinnati Veteran’s Administration Medical Center Cardiac Unit were assessed in terms of aspects of religion and spirituality (including attendance, private religious activities, daily spiritual experience, and religious support, BMMR/S), meaning in life (Personal Meaning Profile, Wong, 1997), and health-related quality of life (HRQOL, SF-36). HRQOL was re-assessed six months later. Results indicated that meaning in life was significantly predictive of most subsequent components of quality of life and that meaning was more strongly related to HRQOL than most of the religious and spiritual measures. Further, meaning in life was a mediator of most of the religious and spiritual variables on both physical and mental components of health-related quality of life.

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Symposium #3B
EFFICACY OF MANTRAM INTERVENTION ON STRESS IN HIV
Jill E. Bormann, Ph.D., R.N.,1 Marty Shively, Ph.D., R.N.,1 Allen L. Gifford, M.D.,2 Laura Redwine, Ph.D.,2 and Tom L. Smith, Ph.D.2
1Psychology, VA San Diego Healthcare System, San Diego, CA; and 2Psychology, University of California-San Diego, San Diego, CA.

Purpose: Stress management programs for HIV use a variety of techniques, but few studies have examined a spiritual intervention using a comparable control group. This study assessed the effects of mantram repetition—a word or phrase with spiritual meaning—on outcomes of anxiety, anger, coping, quality of life, and spirituality.

Design: Experimental design and qualitative interviews at 2 months follow-up.

Methods: Participants recruited with flyers were randomly assigned to intervention (n = 33) or control (n = 33) groups meeting for 5-week (90 minute/week). Intervention group received mantram repetition training; control group received HIV education from videotapes. Outcomes of anxiety, anger, coping, quality of life, and spirituality were analyzed using 2 (group) by 4 (time) mixed design ANOVA with time as repeated measure. Qualitative interviews on group benefits were conducted at 2 month follow-up.

Findings: Sample consisted of 66 HIV-infected adults, 53 (80%) men, 39 (59%) white, ranging in age from 29 to 57 (x = 43.3, sd = 6.73). Over half (68%) had some college education. There were significant group by time effects for positive appraisal coping [F(3,144) = 2.73, pc .05] and stress management ability [F (3, 192) = 2.95, pc .05] indicating the mantram group improved compared to control group. Both groups improved on trait-anxiety, trait-anger, quality of life, and spirituality. Qualitative interviews indicated mantram repetition was helpful for regaining a sense of calmness.

Conclusion: Preliminary findings show support for a mantram repetition intervention for improving positive appraisal coping and stress management.

Funded by NIH/NCCAM(R21AT01159)

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Symposium #3C
UNDERSTANDING AND ADDRESSING THE SPIRITUAL CONCERNS OF CANCER PATIENTS
Jean L. Kristeller, Ph.D.,1 Virgil Sheets, Ph.D.,1 Tom Johnson, Ph.D.,1 and Betsy Frank, D.N.Sc.2
1Psychology, Indiana State University, Terre Haute, IN; and 2School of Nursing, Indiana State University, Terre Haute, IN.

Increasing evidence supports the value of addressing spiritual and religious (S/R) concerns of seriously ill patients, yet how such patients engage S/R issues is highly varied and needs to be further characterized. This paper draws on evidence from programmatic research investigating physician attitudes toward addressing concerns, patient perspectives, and two intervention studies.

Our initial survey research showed that while most oncologists claimed to address S/R concerns regularly, patients drawn from their practices reported rarely receiving such an inquiry. A scale measuring perceived barriers, the PIAS (Provider Issues in Addressing Spirituality), identified 4 factors: Time Concerns; Role Concerns; Low Confidence; Patient Reactions.

In our first intervention trial, oncologists were trained in OASIS (Oncologist Assisted Spirituality Intervention Study) protocol, designed to address these concerns, as it is brief, patient-centered, easily learned, and neutral regarding religious belief. In that study, both patients and oncologists rated themselves as satisfied and comfortable with the interaction. Patients (N=118) received usual care or the OASIS intervention. Three weeks later, the intervention group showed improvement on depression (BSI: p<.01) and quality of life (FACT-G: p<.05) relative to usual care. However, no changes were observed on S/R measures; this speaks to another challenge to research in this area, the multi-dimensional nature of spiritual and religious involvement.

Drawing on factor structures identified in previous research, we will present results of second just-completed intervention trial (N = 130) that combines quantitative and qualitative evidence to more fully characterize the S/R concerns of cancer patients, and those aspects of S/R involvement that are more sensitive to the OASIS intervention.

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Symposium #4
INNOVATIVE OBESITY PREVENTION AND WEIGHT MANAGEMENT INTERVENTIONS FROM CRADLE TO RETIREMENT: DESIGNING FOR DISSEMINATION ACROSS THE LIFESPAN
Discussant: James Sallis, Ph.D., San Diego State University

Overweight and obesity are reaching epidemic proportions in the US and are now rivaling smoking with regard to contributions to preventable death. To stem this epidemic, there is an urgent need for innovative population-based interventions for the prevention and management of overweight and obesity for all age groups. Key features of successful programs include ease of dissemination, cost-effectiveness, practicality of intervention delivery, and selection of delivery channels that allow maximum reach. This symposium includes overviews of three population-based, multiple-behavior interventions for the prevention and management of overweight and obesity for all age groups. The first presentation will examine the potential to use electronic medical records and information systems in pediatric primary care settings to address overweight among children. The second presentation will focus on the development of three computer-delivered multi-media obesity prevention programs for dissemination in elementary, middle, and high schools. The final presentation will describe the development and efficacy testing of a paper-based program that was transferred to an Internet platform for dissemination by employers, managed care organizations, and large health care insurers. The discussion will include recommendations for designing for dissemination, as well as issues of implementation and practicality that need to be addressed to ensure widespread adoption.

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PREPARING FOR THE FUTURE: OBESITY PREVENTION IN PEDIATRIC PRIMARY CARE

Julie A. Wright, Ph.D.1

1Medical Information Systems Unit, Boston University Medical Center, Boston, MA.

A clear, strategic choice for disseminating obesity prevention and management programs is the use of information systems in the health care setting. The American Academy of Pediatrics and Agency for Health Care Quality have identified a need for integrating information technology into child health and preventive care services. This presentation will expand upon this by suggesting how behavioral scientists might design energy-balance interventions for the pediatric health care setting that leverage the potential of information technology. Although current guidelines encourage pediatricians to take an active role in prevention and early recognition of pediatric overweight, realistically, pediatricians are faced with the challenge of meeting a multitude of other guidelines and fulfilling numerous clinical responsibilities. Data suggest that pediatricians are finding energy balance to be a topic that is difficult to communicate to families, that few pediatricians are confident in their ability to counsel children about diet and exercise, and many perceive barriers to counseling on energy balance, e.g., poor patient adherence, insufficient time for follow-up. Despite the multitude of challenges, the pediatric primary care setting should not be overlooked as playing a potentially vital role in the prevention and management of obesity. With the advent of electronic health record (EHR or EMR), there is the potential to overcome these obstacles by incorporating tools (e.g., in information systems that can help pediatricians identify risks and provide resources to facilitate counseling). The development of a health behavior intervention integrated with an EHR in pediatric primary care and the potential use of information systems in pediatric primary care will be discussed.

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DESIGNING FOR DISSEMINATION: EFFECTIVE WEIGHT MANAGEMENT PROGRAMS FOR GROWN-UPS

Sara Johnson, Ph.D.,1 Julie Wright, Ph.D.,2 Sharon Dyment, B.A.,1 and Carol Cummins, M.E.D., M.I.L.S.1

1Pro-Change, Pro-Change Behavior Systems, West Kingston, RI; and 2Medical Information Systems Unit, Boston University Medical Center, Boston, MA.

An estimated 60% of adults are overweight or obese, underscoring the need for cost-effective, population-based interventions that can be disseminated through a variety of delivery channels. Successful dissemination requires careful consideration throughout the development process to issues of practicality, implementation, and staff demand, as well as the effectiveness and appeal of the program. This presentation will describe the development, effectiveness testing, and dissemination of a Transtheoretical Model-based, multiple behavior weight management intervention developed with SBIR funding from NHLBI. A 24-month longitudinal randomized trial is underway and includes a nationwide sample of 1279 overweight or moderately obese adults (mean BMI=30.80; age=45.38 years; 52.8% male; 81% White) who were proactively recruited primarily from large employers. A 21-item, 4-week lifestyle evaluation that queries knowledge regarding the first feedback report and stage-matched multiple behavior manual was administered to a subsample (n=110) in the first phase of the research. Mean scores on the measure (range=2-9.3-4) indicated that the program has high acceptability and satisfaction. 97% reported others would benefit from program.

Concurrently, a dissemination demonstration project is being conducted with a sample of employees from a large health care insurer. The program is being offered in print and Internet platforms to overweight employees deemed eligible by the employer. Lessons learned from program development, transfer to the Internet platform, and dissemination to employers will be shared, with an emphasis on how attention to issues related to implementation and dissemination can and should shape program development.

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WHAT DOES BEHAVIORAL MEDICINE HAVE TO OFFER WOMEN GOING THROUGH MENOPAUSE?

Discussant: Margaret A. Chesney, Ph.D., NCCAM

Behavioral medicine has long been among the approaches to manage symptoms of aging in women. In recent years, the importance placed on behavioral approaches has increased with the growing evidence that hormone replacement therapy (HRT) is associated with increased risk of breast cancer and CVD. Popular press and an increasing number of prospective investigations are examining the use of nutrition, exercise, stress reduction, herbs, and other CAM approaches during the menopausal transition. This symposium examines the scientific role of behavioral medicine in the prevention and treatment of menopausal symptoms and other adverse consequences of aging. Dr. Judith Ockene and her colleagues will discuss findings from a prospective study of physical activity and vasomotor symptoms associated with the perimenopause. Dr. James Carmody and his colleagues will then review evidence from innovative research on the effectiveness of mindfulness-based stress reduction for hot flashes among women experiencing moderate to severe symptoms. Dr. Margaret Chesney, Deputy Director, National Center for Complimentary and Alternative Medicine, NIH, will serve as the discussant. At the request of members, this symposium has been jointly organized by the SBM Special Interest Groups in Women’s Health and Complimentary and Alternative Medicine.

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Symposium #5A

MENOPAUSAL SYMPTOMS REPORTED BY WOMEN AFTER STOPPING STUDY PILLS IN THE WOMEN’S HEALTH INITIATIVE ESTROGEN-PLUS-PROGESTIN CLINICAL TRIAL

J. Ockene, PhD, ME, M. Rosai, PhD, B. Cochrane, PhD, RN, D. Barad, MD, MS, J. Larson, MS, S. Wassertheil-Smoller, PhD, M. Gass, MD, J. Manson, MD, DrPH, V. Barnabei, MD, PhD, D. Lane, MD, MPH, J. Wylie-Rosett, EdD, R. Brzyski, MD, PhD, J. Hays, PhD, E. Gold, PhD

Objective: Describe vasomotor symptoms (hot flashes, night sweats) and vaginal dryness after stopping estrogen plus progestin or placebo.

Design: A self-report survey with symptom items was mailed to women 8-12 months after stopping intervention in a clinical trial of conjugated equine estrogens plus medroxyprogesterone acetate. Only women taking study pills when the trial was discontinued in July 2002 were eligible to receive the survey. They were unblinded soon after stopping and knew their former treatment assignment when surveyed. Logistic regression was used to model both vasomotor symptoms and vaginal dryness as a function of former treatment arm, age at stopping, and baseline symptoms, hormone use, BMI, alcohol use, and smoking.

Results: Surveys were received from 8,405 (89.9%) eligible women (89.6% former active E+P, 90.1% placebo). Compared to eligible nonrespondents, respondents were older, white, high school graduates, partnered, current or past hormone users, and adherent to study regimen; fewer had baseline vasomotor symptoms (p < .01). Respondents’ mean age at stopping was 69.1 years. They averaged 5.7 years on study pills. Less than 18% of respondents reported moderate or severe vasomotor symptoms after stopping (21.2% E+P, 4.8% placebo), and 9.8% of E+P and 5.1% of placebo respondents reported vaginal dryness. After adjusting for multiple covariates, vasomotor symptoms and vaginal dryness were more likely in former active E+P respondents (odds ratio [OR] 5.82, 1.83, respectively) and in women with these symptoms at baseline (OR 5.36, 5.79). These symptoms were less likely in women 70 years or older at stopping (OR 0.35, 0.60) than 55 to 59 years.

Conclusion: During the 8-12 months after stopping study pills, former active E+P respondents reported more vasomotor symptoms or vaginal dryness than placebo respondents. Women with symptoms at baseline were more likely to report symptoms after stopping. These results may be explained by rebound of symptoms relieved by treatment or by induction of symptoms after withdrawal. The generalizability of these findings is limited, and they should be interpreted with caution.

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Symposium #5B

IS PHYSICAL ACTIVITY ASSOCIATED WITH DECREASED RISK OF VASOMOTOR SYMPTOMS DURING THE PERIMENOPAUSE?

Rebecca C. Thurston, Ph.D.,1 Hadine Joffe, M.D., M.Sc.,2 Claudia N. Soares, M.D., Ph.D.,2 and Bernard L. Harlow, Ph.D.2

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No empirically-supported behavioral recommendations currently exist for the management of menopausal symptoms. Findings of decreased risk of vasomotor symptoms among physically active women have been mixed, with conclusions limited by brief, often single-item measures. This study will prospectively evaluate risk of vasomotor symptoms during the perimenopause associated with physical activity in the years prior to the perimenopause. Hypotheses were evaluated in the Harvard Study of Moods and Cycles (N=523), a longitudinal study of women with and without a history of major depression. Odds of vasomotor symptoms (none, mild, moderate/severe; Greene Climacteric Scale) associated with physical activity (quartiles of MET hrs/wk) at baseline, last assessment, and over the study were evaluated within ordinal logistic regression. Results indicated no significant associations between physical activity and vasomotor symptoms for the sample as a whole. However, among women with a history of major depression (30%), women with high (OR=0.30, 95% CI 0.10-0.80), moderately high (OR=0.37, 95% CI 0.14-0.97), or moderately low (OR=0.35, 95% CI 0.12-0.96) physical activity had decreased risk of vasomotor symptoms at last follow up relative to sedentary women, adjusting for age. Among these women, those with high (OR=0.39, 95% CI 0.11-0.73) or increasing (OR=0.27, 95% CI 0.10-0.70) physical activity throughout the study had decreased risk of vasomotor symptoms relative to consistently sedentary women. Physical activity may be associated with decreased risk of reported vasomotor symptoms among women with a history of major depression.

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Symposium #6

9:00 AM–10:30 AM

LESSONS LEARNED AND FUTURE DIRECTIONS: BEHAVIORAL RESEARCH IN CANCER SCREENING

Discussant: Sally Vernon, Ph.D., University of Texas-Houston School of Public Health

This symposium highlights the lessons learned from a generation of behavioral interventions concerned with improving adherence to cancer screening tests and provides directions for future research. An overview of trends in the use of cancer screening tests will be discussed in the context of test efficacy and interventions to promote adoption of tests over time. Lessons learned from behavioral intervention research will be highlighted in three areas of particular interest to behavioral scientists: lessons learned from health care setting-based interventions to improve screening, evidence about informed decision-making for cancer screening and its impact on beliefs, risk perceptions and test uptake, and lessons that can be learned from comparing the approaches that different countries take to population screening. Application of the lessons from this extensive knowledge base not only should accelerate the uptake of effective cancer screening tests currently available, but also can guide the next generation of research.

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Symposium #6A  
CANCER SCREENING INTERVENTIONS IN HEALTH CARE SETTINGS  
Stephanie C. Lemon, Ph.D.,¹ and Jane G. Zapka, Sc.D.¹  
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A substantial body of behavioral and health services intervention strategies have been developed to improve screening rates within health care settings. We conducted a systematic review and summarized lessons learned from interventions designed to improve screening for breast, cervical and colorectal cancers within health care settings to date. The review was done in accordance with an ecological framework. Four broad lessons were learned: 1) factors at multiple levels, including the public policy, community, organizational and practice and individual levels interact to enhance or hinder provider screening recommendations and patient screening participation; 2) a diverse set of interventions targeted at each of these levels can improve cancer screening; 3) the synergistic effect of multiple strategies are most effective, particularly when tailored to the nature and diffusion of the technology as well as unique factors in the particular setting and population; and 4) taking a comprehensive view of the screening process over time and addressing all components of the screening continuum is necessary to best improve cancer outcomes. Recommendations for future intervention research include developing interventions specific to “real world” health care settings, and continue focus on reducing health disparities, both of which may require designs other than randomized controlled trials targeting comprehensive cancer screening rather than screening for a single cancer, promoting informed decision making and developing strategies that use information technology and emerging technologies. The need for studies of health service delivery trends and their impact on cancer screening and suggestions for methods and measurement to best conduct research within the context of health care settings are presented.  
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Symposium #6B  
INFORMED DECISION MAKING: WHAT IS ITS ROLE IN CANCER SCREENING?  
Peter A. Briss, M.D.,¹ Barbara K. Rimer, Dr.P.H.,² Paula K. Zeller, M.A.,³ Evelyn C. Y. Chan, M.D., M.S.,³ and Steven H. Woolf, M.D., M.P.H.³  
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This report provides an overview of IDM; clarifies the differences between IDM, shared decision making (SDM), and informed consent; and reviews the evidence to date about IDM for cancer screening. We define IDM as occurring when an individual understands the disease or condition being addressed and comprehends what the clinical service involves, including benefits, risks, limitations, alternatives, and uncertainties; has considered his or her preferences and makes a consistent decision; and believes he or she has participated in decision making. IDM and SDM interventions, such as decision aids, result in improved knowledge, beliefs, risk perceptions, and combinations of these. Little or no evidence exists regarding whether these interventions result in 1) participation in decision making at a level consistent with patient preferences or 2) effects on patient satisfaction with the decision-making process. These variables were either not assessed or not reported in the articles reviewed. Results of interventions on uptake of screening were variable. After exposure to IDM/SDM interventions, most studies showed small decreases in prostate cancer screening, whereas four studies on breast and colorectal cancer screening showed small increases. Few data are available for evaluating current practices in cancer screening IDM. There are many system barriers to IDM/SDM and few tools. Research is needed to learn how to incorporate IDM into ongoing clinical practice and to determine whether there are unintended negative consequences.  
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Symposium #6C  
COMPARING ORGANIZED AND OPPORTUNISTIC SCREENING FOR COLORECTAL CANCER  
Jane Walde, Ph.D.,¹ Anne Miles, Ph.D.,¹ and Wendy Atkin, Ph.D.²  
¹Epidemiology and Public Health, University College London, London, United Kingdom; and ²Colorectal Cancer Unit, St Mark’s Hospital, Harrow.  
Where screening is provided opportunistically, introducing a new screening technique requires that there is a system for delivering screening and a means of publicising it to health care providers or direct to the public. In health systems that utilise organized screening, the screening programme has to be shown to be an efficient use of ‘health dollars’, there has to be a system which can provide quality-assured screening nationwide, the eligible population must be defined, and a call-recall system must be developed. The first part of this presentation will contrast the provision of screening in the US and the UK, representing extremes of opportunistic versus organised screening for breast and cervical screening. This will be followed by a discussion of the implementation of colorectal screening within the two systems, looking at lessons learned from breast and cervical screening. Finally data from the UK pilot trials of colorectal cancer screening will be presented to highlight the issues involved in maximising participation in CRC screening, minimising disparities in uptake, and reducing any psychological costs.  
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Symposium #7  
EXERCISE AS AN ADJUNCT TREATMENT IN WOMEN’S HEALTH: BEATING BARRIERS AND AIDING ADHERENCE  
Discussant: Bess Marcus, Ph.D., Brown Medical School  
Exercise is a behavioral health intervention shown to reduce negative affect, enhance quality of life, and improve physical health outcomes among several subgroups of female patients. This symposium will attempt to provide an understanding of the exercise literature specific to three chronic conditions that affect the lives of many women: breast cancer, clinical depression, and tobacco dependence. Frank Perna will discuss the use of exercise as an intervention for women undergoing adjuvant treatment for breast cancer. Rationale for exercise as treatment, barriers to exercise, and techniques to promote exercise adherence will be considered. Lynette Craft will review the relationship between exercise and clinical depression. Efficacy of exercise to alleviate depression, variables moderating the relationship, and psychosocial factors related to exercise involvement will be discussed. Tani Mustonen will address exercise interventions as a treatment for tobacco dependence. In smoking cessation research, exercise is used either as an adjunct to pharmacotherapy or as the main intervention. How exercise affects negative affectivity and weight management concerns, two main impediments for female smokers to stop, will be discussed in particular. Barriers to exercise adherence will also be explored. Each presenter will also describe research difficulties encountered utilizing these subgroups of patients. Bess Marcus will conclude the symposium by critically commenting on the current state of the field, what remains unknown, and the challenges of implementing the existing findings into medical and clinical settings.  
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Symposium #7A

EXERCISE ADHERENCE COUNSELING EFFECTS ON PHYSICAL ACTIVITY AMONG BREAST CANCER PATIENTS

Frank M. Perna, Ed.D., Ph.D., 1 Lynette Craft, Ph.D., 1 Gary Skirinar, Ph.D., 1 Karen Freund, M.D., 2 Michael Stone, M.D., 3 Maureen Kavanah, M.D., 4 Lisa Kachnic, M.D., 4 Carolyn Kaelin, M.D., 4 and Rachel Yeater, Ph.D. 5

1Boston University School of Medicine, Boston, MA; 2Boston University, Boston, MA; 3Brigham and Women’s Hospital, Boston, MA; and 4West Virginia University, Morgantown, VA.

Short-term facility-based exercise programs have been shown to enhance mental and physical health among women with breast cancer; however, the efficacy of home-based exercise conducted over the long-term has not been tested, particularly among women living in urban areas. We present preliminary data on the 3-month follow-up of an ongoing year long National Cancer Institute clinical trial testing the efficacy of a cognitive-behavioral therapy (CBT) to promote exercise adherence and cardiovascular fitness (VO2peak) among early stage breast cancer patients treated in an urban setting shortly after surgery. Participants were randomly assigned to either a 1-year Structured-Intervention (SI) or an Internet-based only Control (IC) condition. SI participants were provided with a walking and resistance training program, transitioned to home-based training, and provided with CBT exercise adherence counseling. The IC-group received exercise testing feedback and general information on exercise and healthy lifestyle. Preliminary data with intent to treat analyses indicated that, SI-group participants significantly improved on objective (pedometer counts) and subjective (physical activity recall) measures of physical activity at 3-month follow-up. In comparison to controls, VO2peak and strength also increased while barriers to exercise significantly improved on objective (pedometer counts) and subjective (physical activity recall) measures of physical activity at 3-month follow-up. In comparison to controls, VO2peak and strength also increased while barriers to exercise decreased over time among SI-group members. These findings suggest that CBT with individualized exercise programming, in contrast to general information, may promote physical activity among women with breast cancer shortly after surgery.

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Symposium #7B

EXERCISE AS TREATMENT FOR CLINICAL DEPRESSION

Lynette L. Craft, Ph.D., 1 Frank Perna, Ed.D., Ph.D., 1 Karen Freund, M.D., 3 and Larry Culpepper, M.D. 1

1Boston University School of Medicine, Boston, MA.

Clinical depression affects millions of women each year. Traditional treatments for depression, pharmacological interventions and psychotherapy, can be associated with side effects, and for some, these treatments are ineffective. This presentation will provide data supporting the efficacy of exercise to alleviate symptoms of depression, review proposed mechanisms for the exercise-depression relationship, and present preliminary data from an on-going study examining psychosocial factors associated with exercise involvement among depressed women. Findings suggest that while most depressed women do not meet general recommendations for physical activity, many are at a “contemplation” stage of change. In addition, although depressed women report similar barriers to exercise as women in the general population (i.e., too tired, not enough time, lack of motivation), women with depression perceive significantly lower social support for exercise and lower exercise self-efficacy as compared to non-depressed women (p’s < .05). Furthermore, perceived barriers to exercise were significantly correlated with exercise self-efficacy (r = -.50, p < .05) among women in this group, and barriers to exercise and severity of depressive symptoms were the best predictors of time spent in moderate and vigorous physical activity each week. Finally, practical considerations when implementing exercise as treatment and strategies to promote exercise adherence among depressed women are recommended.

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Symposium #7C

EXERCISE IN TREATING TOBACCO DEPENDENCE AMONG WOMEN

Taru Kinnunen Mustonen, Ph.D. 1

1Harvard School of Dental Medicine, Boston, MA.

Every year, tobacco-related illnesses prematurely claim the lives of over 165,000 women in the United States. The majority of these deaths are due to coronary heart disease. While smoking cessation results in many positive health consequences, it most immediately and substantially impacts cardiovascular morbidity and mortality. Physical activity, on the other hand, has an inverse relationship to cardiovascular morbidity. If exercise activity could be used as a tool to promote smoking cessation, the health benefits would be two fold. Aerobic exercise may be helpful for female smokers because the negative affectivity that is associated with continued tobacco use is more common among women than men, and women more frequently report concerns about weight as a reason for continuing smoking and not attempting to quit. Aerobic exercise may reduce both of these impediments for quitting. We found among a community-based sample of women (78% white) that aerobic exercise as an adjunct to nicotine replacement therapy (NRT) produced higher quit rates than standard care with NRT and the same rates as the equal contact control group (wellness lectures with NRT) at the end of a 4-month treatment (p < .05) and at 1-year follow up (p < .05). Exercise group reported a decrease in depression and increase in positive affect during the treatment (ps < .05). We also found that relapse to smoking was rapid and that adherence to the exercise regimen was less than optimal. Exercise adherence was particularly poor among those with higher baseline BMI, nicotine dependence, depression and stress. Additional research findings regarding effectiveness, adherence, and mechanisms related to exercise and smoking cessation are discussed.

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Symposium #8

9:00 AM–10:30 AM

LEAVING THE LAB: TELEMETRIC MONITORING FOR BEHAVIORAL MEDICINE RESEARCH

Discussant: Theodore Walls, Ph.D., University of Rhode Island

Data produced in laboratory settings are limited in generalizability to the natural environment. Data gathered outside the laboratory has often relied on self-report and has suffered from recall bias and measure reactance problems. Advances in telemetrics have the potential to overcome these limitations. Telemetric monitoring in the social and behavioral sciences allows investigators to study the relationship between behavior and health outcomes without the need to conduct studies in the laboratory. Telemetric monitoring can provide real-time feedback to participants as they engage in physical activities. This presentation will describe the study of stress in a unique population, individuals with autism. The second presentation will describe an application of telemetrics to studying adherence and compliance with a treatment for sleep apnea. The third presentation will describe the development of state-of-the-art telemetric measures for health related-behaviors using ubiquitous computing. The use of telemetric monitoring in the social and behavioral sciences allows investigators to leave the confines of the lab and take steps towards understanding the relationships among behavior, health and the environment in natural settings.

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TELEMETRIC MEASUREMENT OF STRESS IN INDIVIDUALS WITH AUTISM

Matthew S. Goodwin, B.A.,1 June Groden, Ph.D.,1 and Bettina B. Höppner, M.A.2

1The Groden Center, Providence, RI; and 2Psychology Department, University of Rhode Island, Kingston, RI.

Commonly observed characteristics of persons with autism suggest special vulnerability to stressors. However, traditional assessments of stress intensity, utilizing verbal communication, have limited use with this population. This presentation will discuss the benefits of using telemetric recording of cardiovascular reactivity to reliably assess stress reactions in individuals with autism. An experimental study was conducted to test both general and individual vulnerabilities in ten individuals with autism to potentially stressful situations. Wearing an ambulatory heart rate monitor, the participants were observed at baseline followed by the presentation of six stressors salient to individuals with autism: anticipation, exposure to a loud noise, having unstructured time, doing a difficult task, eating a preferred food, and being with an unfamiliar person. Each potentially stressful situation was followed by a short recovery period (sitting quietly). An average of 3,000 data points were gathered for each individual per session enabling analyses of cardiovascular level and slope changes. Using interrupted time series analysis, the results showed that the participants in general showed vulnerability to all six stressors, as evidenced by significant increases in heart rate. In addition, individuals differed in both general heart rate patterns and in the magnitude of their stress response; providing evidence for individual differences in vulnerability to certain types of stressors. The use of telemetric recording, time series analysis, and importance of identifying different patterns of vulnerabilities to stressors in persons with autism will be discussed.

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TELEMETRIC MEASUREMENT OF TREATMENT ADHERENCE IN INDIVIDUALS WITH OBSTRUCTIVE SLEEP APNEA

Mark S. Aloia, Ph.D.,1 and Molly Zimmerman, Ph.D.1

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Adherence and compliance with medical interventions is critical for achieving optimal success. Obstructive sleep apnea (OSA) affects 2-4% of middle-aged women and men. OSA is a serious medical condition that contributes to hypertension, cardiac disease, stroke, and cognitive complaints. The most common treatment for OSA is Continuous Positive Airway Pressure (CPAP). CPAP delivers positive pressure to the upper airway, creating a pneumatic splint during sleep to effectively eliminate airway obstruction. Although an effective form of treatment, adherence to CPAP is notoriously poor. This presentation will describe the use of a device housed within the CPAP machine that covertly monitors treatment utilization. Data are recorded on a microchip on a plastic card housed within the CPAP unit. The card can then be removed and downloaded to an adherence software program. We applied time series data analysis to examine the different patterns of use on 82 participants over a period of 365 days. Seven patterns of use were identified ranging from good users of treatment to non-users. Other categories included individuals who slowly increased or decreased use over a year as well as those who used little but consistently throughout this treatment period. Each of these categories has never before been identified and provides a unique opportunity to determine predictors of various use patterns. These data are crucial for the study of factors that predict adherence and for developing methods to enhance treatment adherence. Data is presented demonstrating the discrepancy between subjective and objective reports of treatment adherence.

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BODY CONSCIOUSNESS AND RISKY SEXUAL BEHAVIORS

Heather Littleton, Ph.D.,1 and Carmen Radecki Breitkopf, Ph.D.1

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Introduction
The present study focuses on the role beliefs about physical appearance play in risky sexual behaviors. Women with a more negative evaluation of their appearance may feel less certain of their status in sexual relationships and thus be more likely to engage in risky sex and less likely to leave a partner who engages in risky sex. They may also be more likely to seek validation of their physical attractiveness through sexual activity.

Method
Women who attended two family planning clinics were administered a questionnaire about their health and risk behaviors. Three aspects of body image were assessed: concerns about appearing attractive to others (surveillance), feelings of shame about appearance (shame), and beliefs regarding one’s ability to change/control physical appearance (control; McKinley & Hyde, 1996). A total of 1,888 women between the ages of 12 and 58 completed the questionnaire. A total of 1,888 women between the ages of 12 and 58 completed the questionnaire.

Results
Negative body image beliefs were associated with having more sexual partners, F (3, 1,201) = 8.8, p < .001, using alcohol or drugs before sex, F (3, 1,186) = 4.7, p < .01, and diagnosis of a STD, $\chi^2 (4) = 8.8, p < .05$. Also, control beliefs were associated with less frequent condom use, F (1, 1,320) = 4.2, p < .05. Finally, negative body image beliefs were associated with having been abused by a partner, $\chi^2 (3) = 18.2, p < .001$.

Conclusion
Women who place a high value on physical attractiveness and who are dissatisfied with their own appearance may be more likely to engage in risky sexual behaviors. Interventions targeting body image beliefs could have an impact on sexual behavior.

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Paper Session #1 2:24 PM–2:42 PM

EXPLORING A CAUSAL RELATIONSHIP BETWEEN BODY DISSATISFACTION AND SMOKING MOTIVATION
Elena N. Lopez, M.A.,1,2 David J. Drobes, Ph.D.,1,2 and Thomas H. Brandon, Ph.D.1,2
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Although weight concerns and negative body image appear to be associated with tobacco smoking, smoking cessation, and relapse among female smokers, previous research has not demonstrated a causal relationship between body image and smoking motivation. The aim of the present study was to test whether an experimental manipulation designed to challenge women’s body image would produce changes in motivation to smoke.

Sixty-two female college smokers participated in this cue-reactivity paradigm. The study employed a 2 X 2 crossed, factorial, within-subjects design (smoking cues X body image cues). The smoking manipulation included a photo of a smoking cue or a neutral object; the body image manipulation displayed a photo of a thin model or a neutral object. Both factors were displayed simultaneously. Dependent measures were self-reported urge to smoke, heart rate response, and skin conductance response.

Both smoking and thin model images increased reported urges to smoke, supporting our hypothesis. Additionally, as expected, trait body dissatisfaction moderated the effect of the body image manipulation: women higher in body dissatisfaction produced greater reactivity to the thin model image, but only when smoking cues were not present. Preliminary analyses of the psychophysiological data appear consistent with the urge findings. This study is the first to demonstrate that among young women, the viewing of images of thin women can increase smoking urges, which is consistent with a causal influence of state body satisfaction. Research and applied implications will be discussed.

Funded by the University of South Florida and by NCI Grant R01 CA94256

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Paper Session #1 2:42 PM–3:00 PM

BMI, BODY IMAGE, AND CHILDREN’S MENTAL HEALTH
Janice Gilliland, Ph.D.,1 Michael Windle, Ph.D.,1 Jo Anne Grunbaum, Ed.D.,2 Deanna Horschler, Ph.D.,3 Susan Tortolero, Ph.D.,3 Antronette Yancey, M.D.,7 and Mark Schuster, M.D., Ph.D.4,5
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Overweight, obesity, and poor body image (BMI) have been associated with lower self-esteem and depression in children. Previous studies are limited by reliance on child reports of BI, by focusing only on internalizing problems, or by failing to include a measure of body mass index (BMI). This presentation examines the relationship between discrepancy scores for actual and ideal BMI for children as viewed from the perspectives of children and their primary caregivers, and indicators of mental health, controlling for gender, ethnicity, and BMI. We used interview and anthropometric data from 650 fifth-graders and their primary caregivers participating in Healthy Passages, a multisite longitudinal study of determinants of youth health behaviors. Participants were recruited via a two-stage clustered probability sample from schools in three sites (Birmingham, AL, Houston, TX, Los Angeles, CA). Measures included BMI, Body Image, and the Strengths and Difficulties Questionnaire that assesses internalizing and externalizing problems. Primary caregivers’ BMI was significantly associated with children’s internalizing and externalizing problems. After controlling for gender, ethnicity and BMI, children’s internalizing and externalizing problems were also significantly (p<.001 and p<.001) associated with discrepancies between primary caregiver’s reports of their child’s ideal versus current BI. Implications of the importance of primary caregivers’ BMI and their perceptions of children’s actual versus ideal BI and its association with children’s mental health is discussed.

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Paper Session #2 1:30 PM–1:48 PM

ADOPTION OF HEALTH BEHAVIOR: A RE-EXAMINATION OF THE ROLE OF ACCULTURATION
Shu-Hong Zhu,1 Shiu Shing Wong,1 Quyen Nguyen,1 and Gary Tedeschi.1
1Cancer Center, University of California, San Diego, CA.

We examine two behaviors that have a significant impact on the population health of Asian Americans and Pacific Islanders (AAPI): One is the help-seeking behavior among smokers trying to quit and the other is the behavior in the family that affects smokers’ chance of successful quitting. Existing acculturation models predict that the acculturation level of AAPI’s is positively correlated with their likelihood of adopting the health behavior in the “host” culture and negatively correlated with their “home culture.” Two large studies, based on population surveys and a large service program with over 10,000 smokers from three Asian language backgrounds, however, produced seemingly contradictory results. One study shows that the acculturation level is positively correlated with the probability of help-seeking, as predicted by acculturation models. The other study, however, shows that acculturation level is negatively correlated with adopting a new behavior in the “host” culture. The new behavior in question is “a home restriction on smoking,” which is a behavior first practiced by the most progressive group in the mainstream culture (i.e., higher educated young adults).

The presentation will discuss how the interaction of factors in Asian and American cultures during a particular period in the tobacco control movement produced these results. These results demonstrate the importance of not misapplying theories of acculturation in designing interventions for AAPI’s, which can be counter-productive. It also points to a promising area of health behavior research that has implications for the AAPI population in the US as well as those in Asia.

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Paper Session #2 1:48 PM–2:06 PM

SOCIAL AND BEHAVIORAL CORRELATES OF CIGARETTE SMOKING AMONG MID-ATLANTIC LATINOS
Lisa Sanderson Cox, Ph.D.,1 Kenneth P. Tercyak, Ph.D.,2 Shibao Peng, Ph.D.,2 Janet Cañar, M.D.,3 Jeanne Mandelblatt, M.D., M.P.H.,2 and Elmer E. Huerta, M.D., M.P.H.4
1Preventive Medicine, University of Kansas Medical Center, Kansas City, KS; 2Oncology, Georgetown University Medical Center, Washington, DC; 3Spanish Catholic Centers, Washington, DC; and 4Hematology/Oncology, Washington Hospital Center, Washington, DC.

Tobacco use is the leading preventable cause of death for the U.S. Hispanic population. The Latin American Cancer Research Coalition includes a network of community clinics within the Washington, DC area. Spanish language interviews were completed with 141 current smokers and 158 former and non-smokers to assess social and behavioral correlates of smoking among Latino primary care patients. Twenty countries of origin were represented. Participants averaged 38.4 years of age (range 18-77 years); 65% were male, 83% were from Central or South America, and 71% spoke primarily Spanish. Among smokers, 82% reported interest in stopping smoking within the next 6 months. Current smokers were more likely than former or non-smokers to use alcohol on a regular basis (59% vs. 31%, p<.0001) and to experience daily symptoms of depression (29% vs. 19%, p<.05). Logistic regression analysis found a moderating effect of depression on the relationship between alcohol use and smoking, such that current users of alcohol who reported depression were more likely to smoke (82%) than were current users of alcohol who did not report depression (56%). X2 (1) = 4.17, p<.05. Latino smokers are interested in stopping smoking, and community clinics provide an avenue for nicotine dependence treatment. Greater risk associated with alcohol use and depression should be considered in intervention development targeted for the Latino community.

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THE RELATION BETWEEN CULTURAL FACTORS (STRESS AND COPING) AND SMOKING IN CHINESE AND EUROPEAN AMERICANS

Cathy Tran, Janice Y. Tsao, Ph.D., and Judy N. Lam, Ph.D.

This study investigated the relation between cultural factors, particularly perceived stress and emotional coping, and smoking rates in a convenience sample of Chinese-American and European-American adult smokers. The study sample included 199 Chinese-Americans (20.6% female) and 110 European-Americans (52.7% female) with a mean age of 40.83 (SD = 13.05). The majority of the Chinese-American sample (97%) were immigrants, primarily from Mainland China, Taiwan, and Hong Kong; 11% of the European-American sample were born outside the U.S. The Chinese-Americans had a lower daily smoking rate than the European-Americans (8.88 vs. 17.32; p < .001). Cultural factors were collected using the Brief COPE and Perceived Stress Scale. The two groups differed in gender, education level, marital status, number of years smoked, and age first smoked; therefore, these variables were included in subsequent analyses as covariates. Using collectivist and individualistic theoretical approaches and exposed to neutral (changing a lightbulb) stressful (dental work), and smoking (lighting up after a meal) situations, using script-guided imagery under controlled laboratory conditions. Participants completed craving questionnaires before and after each condition, which were separated by a neutral video. Supporting the hypotheses, even after controlling smoking history and strength of habit, FH+ Smokers (n=56) displayed stronger craving reactions to both dental and smoking imagery (p<.05) than did FH- Smokers (n=74). Interestingly, women had higher stress-, but not higher smoking-cue-induced cravings than men, with FH+ women exhibiting the highest levels of stress-induced craving. Findings suggest a mechanism through which a family history of smoking leads to poorer cessation success, especially among women. (Supported by ACS Grant #RGTG-01-153-01-CCE)

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PREDICTORS AND PREVALENCE OF TOBACCO USE AMONG 9TH GRADE ARAB AND NON-ARAB AMERICANS

Virginia Hill Rice, Ph.D., R.N., Thomas Templin, Ph.D., Linda E. Weglicki, Ph.D., R.N., and Adnan Hammad, Ph.D.

This study examined predictors of tobacco use among 9th graders. Reliable and valid bilingual measures were completed by 1755 adolescents; 89% self-identified as Arab American (ArA). Average age was 14.54 (SD=±8.31; 55% were male. Cigarette smoking in the last 30 days and experimental use were highest among the non-ArA, (9.2%, 27.6%, respectively), and narghile (water pipe) current use and experimentation were highest (20%, 26%, respectively) for ArA. Having three or more friends who smoke (OR=5.72), brother(s) who smoke (OR=3.52), being US born (OR=5.08), and offers to smoke (OR=3.82), all contributed to last 30-days cigarette smoking. Correctly classified were 72% of students who currently smoke and 84% of nonsmokers. FH+ Smokers (n=86) displayed stronger craving reactions to both dental and smoking imagery than FH- Smokers. We hypothesized that culture and emotional coping would mediate smoking intentions (Web: t[157] = 2.58, p=0.01; Print: t[158] = 3.11, p=0.002) and intentions (Web: t[157] = 2.27, p=0.02; Print: t[159] = 6.32, p<0.001). The print group demonstrated significantly greater increases in intentions compared with the Web group (F[1,315]=13.53, p=0.001). Self-reported physical activity was assessed as a secondary outcome. Results: Both Web and print groups had significant changes in physical activity self-efficacy (Web: t[155] = 2.58, p=0.01; Print: t[156] = 3.11, p=0.002) and intentions (Web: t[157] = 2.27, p=0.02; Print: t[159] = 6.32, p<0.001). The print group demonstrated significantly greater increases in intentions compared with the Web group (F[1,315]=13.53, p=0.001). Self-reported physical activity increased significantly in the Print group only (t[159]=3.21, p=0.002). The print group was also more likely to recall the materials and recommend them to a friend. Process data revealed no differences in the exposure to the materials or additional information seeking. Conclusions: A printed workbook was more effective than an identical Website for increasing physical activity intentions and behavior among a sample of middle school girls.

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A COMPARISON OF WEB AND PRINT MEDIA FOR PHYSICAL ACTIVITY PROMOTION AMONG ADOLESCENT GIRLS

Julie T. Marks, Ph.D., Marci K. Campbell, Ph.D., Dianne S. Ward, Ed.D., Kurt M. Ribisl, Ph.D., Barbara M. Wildemuth, Ph.D., and Michael J. Symons, Ph.D.

A randomized trial was conducted between September 2003 and March 2004 to compare a Web-based physical activity intervention with identical content in a printed workbook among middle school girls with home Internet access (n=319). Participants were surveyed after two weeks for changes in the primary outcome variables of physical activity self-efficacy and intentions. Self-reported physical activity was assessed as a secondary outcome. Methods: A randomized trial was conducted between September 2003 and March 2004 to compare a Web-based physical activity intervention with identical content in a printed workbook among middle school girls with home Internet access (n=319). Participants were surveyed after two weeks for changes in the primary outcome variables of physical activity self-efficacy and intentions. Self-reported physical activity was assessed as a secondary outcome. Results: Both Web and print groups had significant changes in physical activity self-efficacy (Web: t[155] = 2.58, p=0.01; Print: t[156] = 3.11, p=0.002) and intentions (Web: t[157] = 2.27, p=0.02; Print: t[159] = 6.32, p<0.001). The print group demonstrated significantly greater increases in intentions compared with the Web group (F[1,315]=13.53, p=0.001). Self-reported physical activity increased significantly in the Print group only (t[159]=3.21, p=0.002). The print group was also more likely to recall the materials and recommend them to a friend. Process data revealed no differences in the exposure to the materials or additional information seeking. Conclusions: A printed workbook was more effective than an identical Website for increasing physical activity intentions and behavior among a sample of middle school girls.

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EXAMINING THE EFFICACY OF A TAILORED INTERNET PHYSICAL ACTIVITY INTERVENTION: BASELINE DATA AND PRELIMINARY FINDINGS

Bess Marcus,1 Beth Lewis,1 John Jakicic,2 Melissa Napolitano,1 Christopher Sciamanna,1 Beth Bock,1 Deborah Tate,1 Alfred Parisi,1 Charles Neighbors,1 Jessica Whiteley,1 and David Williams.1

Nearly two-thirds of Americans access the Internet (Madden & Raine, 2003). Therefore, the Internet may be a useful channel for physical activity promotion. This study examines the efficacy of an Internet versus a print intervention for physical activity adoption and maintenance. We will randomize 240 (current n=159) sedentary participants to one of three interventions: 1) Internet-based motivationally-tailored individualized feedback (Tailored Internet); 2) print-based motivationally-tailored individualized feedback (Tailored Print); or 3) websites currently available to the public (Standard Internet comparison group). Participants will complete the 7-Day Physical Activity Recall interview and treadmill exercise test at baseline, six, and 12 months. The current sample at baseline (n=159) is comprised of mostly women (82%) and Caucasian individuals (92%) who reported exercising an average of 21 minutes per week. Preliminary results indicate that the Tailored group (n=43) accessed the Internet for an average of 260 minutes per week and a majority reported accessing the Internet from home (91%). Additionally, the Tailored Internet group increased their physical activity level from baseline to six months (23 minutes/week at baseline to 157 minutes/week at six months). Lessons learned from the trial will also be presented. This study will have implications for public health dissemination of non face-to-face physical activity interventions.

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Six-Month Dietary and Physical Activity Outcomes in “PACE-Women in Balance”: A Primary-Care and Web-Based Intervention

Karen J. Calfas, Ph.D.,1 Gregory J. Norman, Ph.D.,2 Marion F. Zabinski, Ph.D. M.P.H.,2 James F. Sallis, Ph.D.,1 and Kevin Patrick, M.D. M.S.2

SIX-MONTH DIETARY AND PHYSICAL ACTIVITY OUTCOMES IN “PACE-WOMEN IN BALANCE”: A PRIMARY-CARE AND WEB-BASED INTERVENTION

Karen J. Calfas, Ph.D.,1 Gregory J. Norman, Ph.D.,2 Marion F. Zabinski, Ph.D. M.P.H.,2 James F. Sallis, Ph.D.,1 and Kevin Patrick, M.D. M.S.2

Physical inactivity and poor dietary choices contribute to increasing weight among young and middle-aged women. The purpose of the “PACE-Women in Balance” study was to help women improve dietary and physical activity (PA) behaviors. 401 mildly obese women (BMI=25-34.9) were randomized to a 12-month PA/CE intervention or to a delayed treatment condition. PA/CE participants completed a computerized assessment and set one PA and one nutrition goal to discuss with their physician at a non-acute visit. Participants logged onto a secure website and completed monthly modules for goal-setting, use of behavior change skills, and educational topics. Target behaviors for the intervention included increasing PA, fruit and vegetable intake, fiber intake and decreasing dietary fat. Trained health counselors sent individualized monthly emails and phone calls. PA was assessed through self-report (International Physical Activity Questionnaire), and dietary intake was assessed with the Fred Hutchinson Cancer Center Food Frequency Questionnaire at baseline and six months. Women in the PA/CE intervention significantly increased servings per day of fruits (p<0.01, eta2=0.09), vegetables (p<0.01, eta2=0.06), grams of fiber (p<0.01, eta2=0.06), and significantly lowered their percent of energy from fat (p<0.01, eta2=0.06) compared to the control group. There were no significant changes in PA. These data indicate that participants were making significant improvements in all dietary target behaviors with moderate effect sizes. The intervention was not successful in changing physical activity. This internet-based program shows promising initial results.

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Windows
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**Paper Session #4** 1:30 PM–1:48 PM

**CAN OVERLY SCRUPULOUS RELIGIOSITY AFFECT MENTAL AND PHYSICAL HEALTH?**

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Religiousness has been associated with greater mental and physical health (George, et al., 2000). However, research suggests that overly scrupulous religiousness (SR) (i.e., “I must fulfill all the obligations of my church”) can have negative mental and physical health impacts (Sloat, 1990). Seventy-five elderly, self-identified church members participated in a study of religiousity, mental and physical health. Participants completed surveys assessing religious beliefs and practices, psychological, depression, anxiety, and physical health. A split median of scrupulous religious scores (range 1–4) divided the two groups into high SR (M=1.6, SD=0.24) and low SR (M=2.6, SD=0.47).

The high SR group scored higher on doctrinal orthodoxy, (t(73)=7.8, p<.001), religious practices (t(75)=2.4, p<.05), and adherence to religious authority (t(75)=2.0, p<.05).

Scrupulous religiosity appeared impact on participants affective mental health functioning. The high SR group displayed more negative affective mental health: anxiety (t(73)=2.7, p<.01), and depression (t(73)=2.6, p<.05). High SR participants also reported higher stress levels (t(73)=2.109, p<.05). There was no difference between the groups in psychopathology (t(75)=.43, ns).

However, while high SR appears to negatively impact affective mental health, it does not seem to overly affect physical health. High SR participants did not report more physical health problems (t(73)=.522, ns) or medication consumption (t(73)=.76, ns) than low SR participants.

This information is important for those working with home-based and nursing home-based elderly patients. While strong feelings of scrupulous religiosity appear unlikely to affect patients’ physical functioning, it may be reflective of poor affective health.

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**Paper Session #4** 2:06 PM–2:24 PM

**SPIRITUALITY, SELF-ESTEEM, AND DEPRESSION IN HIV+ ADULTS WHO USE COMPLEMENTARY AND ALTERNATIVE MEDICINE**

Sharita K. Clay, and Mark Vosvick, Ph.D.

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Depression is reported to be a common challenge for HIV+ adults living. This study, part of a larger study that examined Complementary and Alternative Medicine (CAM) usage in the HIV+ population, explores the relationship between an individual’s spirituality, self-esteem and depression. HIV+ individuals who reported CAM usage were recruited from AIDS Service Organizations in the Dallas/Ft. Worth metroplex. Participants (n=405, 50% female) included 65% African Americans, 30% Caucasians, 5% Hispanic with 65% reporting an AIDS diagnosis. Participants completed demographic, medical questionnaires and three psychosocial measures. Spirituality was assessed with the Ironson/Wood Spirituality/Religiosity Index, self-esteem with the Rosenberg Self-Esteem Scale and depression with the Center for Epidemiologic Studies-Depression Scale (CES-D). Both spirituality (r=.47, p<.01) and self-esteem (r=.50, p<.01) were negatively and significantly associated with depression, however, although a significant association between self-esteem and spirituality existed, it did not reach significance.

A linear regression analysis [adjusted R²=.37, F(3,36)=8.72, p<.001] found that sense of peace through spirituality/religiosity increased (t=−2.99, p<.005) as well as self-esteem increased (t=2.93, p<.006), participants reported less depression. Surprisingly, trending towards significance in our model was whether a participant had an AIDS diagnosis (r=−.76, p=.088), since those that did also reported lower levels of depression. These findings suggest that spirituality and self-esteem might be useful topics to address when counseling adults living with HIV/AIDS. The counterintuitive finding that participants with an AIDS diagnosis report lower levels of depression may be explained by the spirituality component of coming to terms with their mortality. Research needs to be conducted to fully explicate the role that spirituality and self-esteem play in the lives of adults living with HIV/AIDS.

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**Meritorious Student Paper**

**Paper Session #4** 1:48 PM–2:06 PM

**EFFECT OF SPIRITUALITY ON CARDIAC ACTIVITY DURING PAIN AND STRESS**


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Stress and pain cause potentially negative physiological changes including increased cardiac activity (Schneider, et al., 1995). While research suggests spirituality may have a positive effect on health, (George, et al., 2000) questions remain as to how spirituality might specifically affect cardiac physiology.

Participants meditated using a spiritual phrase, a secular phrase, or relaxation technique. After two weeks, participants practiced their technique, then completed a Cold Pressor (CP) task. Cardiac readings were taken at multiple points during this session: “Baseline” after 5 minutes of rest, “TT1” at 10 minutes of meditation/relaxation, “TT2” at 20 minutes of meditation/relaxation, “CP1” at initiation of CP, “CP2” at 1 minute of CP, and “Post-CP1”, “2”, “3” immediately upon stopping CP and every 2 minutes post-CP.

While differences existed between groups’ ratings of task spirituality, all groups rated their task at least “somewhat” spiritual. All groups increased in the number of reported daily spiritual experiences (DSE). These spiritual experiences seemed to influence cardiac reactivity to stress and pain. DSE was not related to blood pressure at any time point, but was related to TT1 heart rate (HR) (r=.224, p<.05), TT2 HR (r=.264, p<.05), CP2 HR (r=.749, p<.05), Post-CP1 HR (r=.289, p<.01), Post-CP2 HR (r=.205, p<.05), Post-CP3 (r=.279, p<.05).

Spiritual experiences did not affect participants’ initial response to stress (CP1), but as the CP task becomes painful, a significant relationship appeared (CP2). This may have implications for clinicians who use brief interventions to help clients in pain utilize their spiritual resources and reduce their cardiac reactivity to pain.

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**Meritorious Student Paper**

**Paper Session #4** 2:24 PM–2:42 PM

**THE EFFECT OF SPIRITUALITY ON CANCER CAREGIVERS’ QUALITY OF LIFE**

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Studies have found that spirituality buffers the adverse effect of stress. However, few studies have examined the role of spirituality in the context of cancer care. Thus, in this study, the moderating effects of spirituality on the relationship between care-related stress and caregivers’ mental and physical health were examined. An Implementation Pilot Caregiver Survey was mailed to familial caregivers who were nominated by cancer survivors who participated in a national longitudinal study of cancer survivors. The caregiver survey included measures for spirituality (FACT Spirituality), care-related stress (subscales of the Pearlin Stress Scale and the Caregiving Reaction Assessment), and mental and physical functioning (MOS SF-36). Six-hundred thirty-two caregivers provided valid information on these measures. Results using hierarchical regression analyses supported the hypothesized moderating effects of spirituality but in different patterns. Specifically, the levels of care-related stress were associated with poorer levels of mental functioning, which was less prominent among caregivers whose level of spirituality was high (stress buffering effect of spirituality). In contrast, the levels of care-related stress were associated with poorer levels of physical functioning, which was more prominent among caregivers whose level of spirituality was high (stress aggravating effect of spirituality). The findings suggest that maintaining faith and finding meaning out of experiences of providing care buffer the adverse impact of care-related stress on mental health. On the other hand, highly spiritual caregivers should be encouraged to pay more attention to their physical health while they are providing care to their loved ones with cancer.

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PROGRAMS
ENVIRONMENTAL DRINKING PREVENTION
Paper Session #5 1:30 PM–1:48 PM

Religious Well-Being of Terminal Cancer Patients and Caregiver Quality of Life: A Mediation Model

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Previous research indicates that cancer patients who report more satisfaction in their relationship to God, or greater religious well-being (RWB), also experience less illness-related distress. Lower distress experienced by terminal cancer patients with greater RWB may result in greater quality of life (QoL) for their caregivers. To address this, we studied 65 married patient/caregiver dyads. Patients had Stage III-B or Stage IV cancer and averaged 63 years old. Patients’ Karnofsky performance status averaged 76 and 33% were female. Caregivers averaged 62 years old and 67% were female. RWB was assessed with a subscale of the Spiritual Well-Being Scale, patient symptom distress was assessed with the Memorial Symptom Assessment Scale, and caregiver QoL was assessed with the Caregiver Quality of Life Scale. As expected, patients with greater RWB had less symptom distress (r = −.27, p < .05) and better caregiver QoL (r = .24, p < .05). Greater symptom distress was related to poorer caregiver QoL (r = −.29, p < .05). When symptom distress was controlled for in a hierarchical regression analysis, RWB no longer explained significant variance in caregiver QoL (partial r-squared = .03, n.s.). Potentially confounding demographic (e.g., education), clinical (e.g., performance status), and psychosocial (e.g., caregiver RWB) variables were unassociated with caregiver QoL and/or patient RWB and thus could not explain the relationship. The findings suggest that the relationship between terminal cancer patients’ RWB and their caregivers’ QoL is mediated by the distress patients experience related to their symptoms.

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LONGITUDINAL EFFECTS ON DRUG USE OF ENVIRONMENTAL DRINKING PREVENTION PROGRAMS

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This study tested whether patterns of marijuana and other drug use differed among college youth (n=26,514) exposed to an environmental alcohol abuse prevention program. We conducted a quasi-experimental longitudinal analysis of illicit drug use, using repeated cross-sectional survey data from the Harvard School of Public Health College Alcohol Study. Outcome measures included: past year and past 30 day marijuana use, past year and past 30 day illicit drug use. Comparisons were conducted on self-reported behavior of students at ten intervention and 32 comparison colleges over the 1997 to 2001 period. Multi-level random intercept models for binary outcomes in MLwiN 1.1 were estimated. We observed significant differences in the slopes over time for past year marijuana use (-0.011 vs. 0.032; ChiSq = 5.754; p = 0.0182) and past year any drug use (0.002 vs. 0.041; ChiSq = 4.712; p = 0.0300) when comparing students at intervention and comparison colleges, after adjusting for age, gender, race/ethnicity, region of the country and baseline rates of drug use. In analyses stratified by gender, we observed significant program effects among female students. We did not observe significant program effects among males. Tests for past 30 day marijuana use (-0.007 vs. 0.028; ChiSq = 2.687; p = 0.1012) and drug use (0.004 vs. 0.045; ChiSq = 3.782; p = 0.0518) were not statistically significant. Changing the drinking environment in colleges may also affect illicit drug use among young people for these strongly correlated behaviors.

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BRIEF STD/HIV INTERVENTION IN A JUVENILE DETENTION CENTER: SEXUAL RISK BEHAVIOR AND RISK REDUCTION

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Incarcerated juvenile offenders are at extremely high risk for sexually transmitted diseases (STDs). Incarceration provides an opportunity to intervene with these adolescents; however, many juveniles are held for 72 hours or less. Thus a brief intervention may be the only option for youth who do not attend school regularly or are involved in community outreach programs. This study examined a 2 hour STD educational and risk reduction program that utilized films, discussion, and games to engage this population. The sample included 165 offenders aged 13-17 confined in a juvenile detention center, mostly male (78.8%) and African-American (93%). Sexual risk behaviors were assessed pre-intervention and approximately 2 months after release. Risk reduction behaviors were assessed at follow-up only. Results showed that the frequency of engaging in most high risk sexual behaviors did not significantly change. Sex under the influence of alcohol or other drugs actually increased over baseline rates. Conversely, the majority of participants reported that they had engaged in a number of risk reduction behaviors during the follow-up period to include carrying condoms, communication with sexual partners and adults about risk, and being tested for STDs. Also, the number of participants that reported that they had abstained from sexual activity increased during follow-up. Although juvenile offenders need interventions of longer duration, this study demonstrated that brief STD/HIV interventions can be implemented in juvenile detention centers and hold promise for reaching this high-risk group.

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COMORBIDITY OF TOBACCO, ALCOHOL, AND MARIJUANA USE AND SEXUAL RISK BEHAVIORS AMONG AFRICAN AMERICAN YOUTH

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Despite an abundance of research on multiple risk behaviors among white adolescents, there is a paucity of information regarding the comorbidity of tobacco, alcohol, and marijuana use and sexual risk behaviors among African American youth. This study explored the link between these risk behaviors in 119 African American youth (average age 14.7, 51% male). Consistent with existing research less than a third of youth (23%) had used tobacco on an average of 17 days (SD = 12.3) in the past month. Nearly half of smokers (48%) reported drinking alcohol in the past month. For youth who reported alcohol use, those who also smoked drank on more days than non-smokers (t [1107] = 9.35, p = .000; 3.0 vs. 0.6 days). Nearly two thirds of smokers (61%) reported marijuana use. For youth who reported marijuana use, those who smoked cigarettes used marijuana on more days than nonsmokers (t [1097] = 11.30, p = .000; 7.6 vs. 1.7 days). Smoking youth, as compared to non-smoking adolescents, also reported more unprotected sexual acts (t [1067] = 4.73, p = .000; 4.1 vs. 1.4 acts) and a greater number of sexual partners during the past 3 months (t [1083] = 5.13, p = .000; 2.8 vs. 1.3 sexual partner). Results provide strong evidence of the comorbidity of these risk behaviors among African American youth, suggesting that multifaceted tobacco prevention programs are needed.

Supported by NIH/NIAAA grant R21-AA13075.

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PARENTS’ PERCEPTIONS AS PREDICTORS OF YOUTHS’ SEXUAL HEALTH BEHAVIORS
Regina P. Lederman, Ph.D.,1 Wenyaw Chan, Ph.D.,2 and Cynthia Roberts-Gray, Ph.D.3
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Knowledge, behaviors, and family interactions about sexual health were assessed over two years for middle school youth and their parents, both of whom participated in a novel family-centered HIV and adolescent pregnancy prevention program. Parent-child dyads were randomly assigned to an Experimental Social Learning (n=90) or an Attention Control (n=80) program. Questionnaires were administered to the parents and to the children before and after an initial series of four weekly sessions and three booster/maintenance sessions. Linear mixed model procedures using parents’ perceptions to predict youths’ behaviors showed that youths’ behavioral capabilities for resisting pressures to have sex were lower when their parents expressed greater comfort talking about sex and drugs (p<.01). Parents’ talking more with youth about sex and drugs was predictive of youth feeling more comfortable about getting birth control (p<.05). However, parents’ perceptions that youth greatly value their parent’s opinions about sex and drugs was predictive of youth feeling less comfortable about getting birth control (p<.05). Descriptive analyses showed many parents underestimated how much their child valued parent’s opinions. These data emphasize the importance of interventions to help parents talk with their children about sex and drugs in ways that ensure that youth understand parent’s opinions about sexual health behaviors.
Note: n=sample size; p=significance level. This study was supported by NIH grant #R01 NR 04675-05
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TIME TO LET THEM FLY? ROLE OF PARENTAL MONITORING, NEGOTIATING AND TRUST IN YOUNG ADOLESCENT RISK BEHAVIOR
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This paper examines the relative importance of parental monitoring, negotiation un-supervised time, parental permissiveness, perceived trust and relationship quality) on the reporting of health risk behaviors (alcohol, tobacco and drug use, sexual activity and proactive health behaviors) among young adolescents (ages 12-14).
Data were derived from 661 7th grade adolescents from three urban middle schools, collected on audio-supported PDAs. As documented in the literature, the bivariate analyses revealed significant associations between all five parental factors and a wide variety of health risk behaviors. However, using gender-specific multivariate logistic regression analyses, we found very different patterns of effects for males and females. Among males, only two factors (lower parental monitoring and increased negotiation of unsupervised time) remained significantly associated with higher risk behavior (having vaginal or oral sex, experimentation with tobacco, alcohol and marijuana). In particular, high negotiation was associated with 11 of the 12 risk behaviors (all p<.01) as well as proactive behaviors (e.g., carrying protection). While these two factors were associated with a few behaviors among females (substance use), the pattern is much less consistent, and the other factors, particularly increased permissiveness and parental trust play a much larger and stronger role, particularly with sex-related behaviors. These findings highlight not only the contextual influences of adolescent risk behavior, but identities possible interventions aimed at parents for reducing high risk behavior among their young adolescents.
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SYSTEMS, SOCIAL CAPITAL AND DISSEMINATION THROUGH GOVERNMENT
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1NCI.
National government entities like the National Cancer Institute have a unique role in dissemination that offers both opportunities and challenges. These organizations benefit from national exposure and because they represent the federal government. However, given the U.S. system of combined government and private funding for research, national government agencies have limited central control over what is disseminated, by whom, and how. They face the deficit of uneven reach into local communities. Finally, dissemination from government may not be viewed positively by various target audiences due to suspicion of government. Based on case studies of dissemination efforts and observations at NCI conducted while serving as an AAAS fellow from 2003-2005, the proposed paper explores the various strategies that NCI initiatives use to improve dissemination and implementation of evidence based products and practices for quality cancer care. NCI uses a creative combination of their own systems and partnerships with the private sector in their dissemination efforts. The proposed paper uses two theoretical concepts - organizational systems theory and social capital - to analyze government dissemination activities. Organizational systems theory describes the role of policy channels and inter-organizational dynamics in dissemination. NCI has natural channels through its grantees, also relying on government health systems and their links to states and localities. Government systems include federal pass through systems to state and local health departments, and dissemination through other HHS agencies. Social capital refers to networks based on trust and reciprocity that individuals and organizations use to meet their goals. Analysis describes ways that NCI uses existing networks and attempts to expand social capital through its partnerships.
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Paper Session #6 2:06 PM–2:24 PM

FUN 5: A PHYSICAL ACTIVITY AND NUTRITION PROGRAM - DISSEMINATION IN ELEMENTARY AFTER SCHOOL PROGRAMS

Claudio R. Nigg, Ph.D.,1 Megan Inada, B.S.,1 Marisa Yamashita, B.S.,2 Jackie Battista, M.P.H.,1 Jo Ann Chang, B.B.S.,2 and Richard S. Chung, M.D.2
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Given the physical activity (PA) benefits for children, effective approaches using innovative channels are needed. We (Hawaii State Department of Education, Hawaii Medical Service Association, University of Hawaii, and community organizations) piloted Fun 5 promoting PA and nutrition using the proven Sports, Play, and Active Recreation for Kids-Active Recreation (SPARK AR) in 13 elementary Afterschool Plus (A+) programs (grades 4-6, n=533). At baseline (T1) students were sedentary (standing/sitting/lying down) 87.1% of the time during A+. Sedentary time decreased (21%), and moderate/vigorous PA time increased (40%), reflecting management decrease and game play increase. Leisure-time strenuous PA (T1=3.9±2.2 d/wk; T2=4.1±2.1 d/wk), mild PA (T1=3.1±2.5 d/wk; T2=3.2±2.5 d/wk), enjoyment, subjective norm and self-efficacy did not change (p>.05). However, moderate PA (T1=3.1±2.3 d/wk; T2=3.6±2.2 d/wk; F=5.10, p=.05, partial eta2=.06) and attitude (F=95.02, p<.05, partial eta2=.54) improved. Limited effects were observed with fruit and vegetable consumption. Due to the pilot’s success, Fun 5 is offered for statewide dissemination for Kindergarten to Grade 6. This includes lessons learned: using boosters to maintain leaders’ motivation; removing communication hierarchies; and minimizing paperwork. 59 sites were trained (over 7000 students) in the first dissemination semester with a planned RE-AIM evaluation. 12/13 pilot sites continue implementation. With increasing childhood obesity and related risks, and decreasing Physical Education, after-school programs are instrumental in promoting PA.

Fun 5 is an initiative of the Blue Cross and Blue Shield Association.

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Paper Session #6 2:24 PM–2:42 PM

TRANSLATING COMMIT TO QUIT, A SMOKING cessation and physical activity program, into YMCA

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Approximately 22% of women continue to smoke cigarettes despite the increased risk of cancer associated with smoking (USDHHS, 2002). In our Commit to Quit (CTQ) program for women, regular aerobic exercise improved cessation rates when added to a smoking cessation treatment (Marcus et al., 1991; 1995; 1999). The purpose of this trial was to test the feasibility of conducting CTQ in the YMCA setting. To date, 77 women attended Informational Sessions, 68% (n=52) of whom were eligible and 56% (n=43) of whom enrolled in 5 cohorts. All cohorts received the same intervention, the CTQ smoking cessation program, led by psychologists, coupled with the YMCA Personal Fitness Program, led by YMCA personal trainers. Of the participants who completed the treatment in the first 4 cohorts, women decreased their average cigarettes smoked per day from 20.1 cigarettes (SD=8.8) at baseline to 8.4 (SD=10.2; p<.001) at the end of treatment. Of the women who completed treatment, self-reported physical activity significantly increased from an average of 522.3 kcal (SD =642.2) at baseline to 1330.5 kcal (SD =1271.3) at 12 weeks (p <.001). We have begun to demonstrate the translation of CTQ in the YMCA; recruitment procedures have been established, women have been successfully recruited, the program has become integrated into the YMCA, and behavior change demonstrated.

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Paper Session #7 3:30 PM–3:48 PM

MAPPING THE SOCIAL AND PHYSICAL CONTEXTS OF PHYSICAL ACTIVITY ACROSS ADOLESCENCE USING ELECTRONIC EXPERIENCE SAMPLING

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An ecological approach towards understanding declining physical activity (PA) levels during adolescence emphasizes the influence of contextual factors. Therefore, this study used electronic experience sampling (EES) to map the social and physical contexts of walking and exercise across high school. A sample of 338 adolescents (50.6% female) of mixed ethnicity (53% Caucasian) participated in 4-day EES intervals (Thurs-Sun) occurring approximately every 6 months between 9th and 12th grade. Using a Palm III handheld computer, each participant simultaneously reported his or her primary activity (e.g., exercise, walking, homework), social context (e.g., friends, family, class), and physical milieu (e.g., home, school, outdoors) every 30 (±10) min during waking hours (M=903.10 observations per participant across the four years). Multilevel random coefficient modeling is a test in PA contexts over time. Overall, the greatest proportion of diary-reported exercise and walking occurred with friends (35%-36%) and at school (27-30%). Between 9th and 12th grade, the proportion of exercise occurring at school and with a class decreased, whereas exercising alone, with a boy/girlfriend, or with a stranger increased (p<.001). Although the physical context of walking did not change, the proportion of walking occurring with family and friends decreased, and walking alone and with a boy/girlfriend increased during this time period (p<.001). Results suggest that circumstances surrounding PA vary considerably between 9th and 12th grade. Understanding how opportunities for PA may change across high school can be helpful in designing interventions aimed at preventing age-related declines during this period.

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This study examined the correlates of physical activity in an urban sample of over three hundred 7th graders. The sample included 30% Caucasian adolescents, 36% Black adolescents and 34% Hispanic adolescents. Psychological, social and environmental variables were examined as well as demographic variables. Specifically, independent measures included: age, gender, race/ethnicity, baseline physical activity levels, self-efficacy (2 measures), positive and negative social support (4 measures), social norms (3 measures) and environmental variables (8 measures). Physical activity was measured as total physical activity over the past three months.

A factor analysis was run on the 8 environmental variables. A 5-item factor representing a ‘facilities’ factor was included in the analysis. In addition, one of the two safety variables (i.e., How safe is it for you to play outdoors in your neighborhood with your friends without an adult) was entered into the linear regression models.

Self-efficacy (able to be active even if its cold), being safe to play outdoors, pre-play with your friends without an adult) was entered into the linear regression models. This research supports the notion that multiple levels of factors influence physical activity levels. Safety as well as high social support and self-efficacy were associated with increased physical activity levels. The facilities factor was not associated with physical activity as had been shown in a previous wave of data.

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Paper Session #7 3:48 PM–4:06 PM

PSYCHOLOGICAL, SOCIAL AND ENVIRONMENTAL INFLUENCES ON PHYSICAL ACTIVITY LEVELS IN URBAN ADOLESCENTS

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There is evidence that reducing sedentary behavior time can be an effective weight loss strategy for youth independent of physical activity levels. However, not all sedentary behaviors should be reduced (e.g., homework, reading). Additional research on how adolescents spend their time overall and whether certain behaviors cluster together would be helpful for program development. Questionnaires were completed by 877 adolescents (54% female, mean age=12.7 [range 11-15], 60% Caucasian). Estimates of time spent in 6 sedentary behaviors (TV, phone, computer, listening to music, homework, and reading) were cluster analyzed resulting in 4 clusters that replicated well between two random sub-samples. Clusters were labeled ‘Low’ (low levels of all sedentary behavior), ‘Medium’ (moderate levels of all sedentary behaviors), ‘Selective High’ (high levels for TV, computer, and phone only) and ‘High’ (high levels of all sedentary behaviors). One-way ANOVAs revealed significant differences by cluster for gender (p<.002), age (p<.002), and BMI (p<.001). More boys were classified as ‘Selective High’, more older adolescents were classified as ‘Medium’, and those with highest BMIs were classified as ‘High’. Significant differences also emerged for minutes of moderate and vigorous activity (p<.01) and fiber intake (p<.01) with the ‘Low’ cluster reporting healthier behaviors. These results suggest a limited number of distinct sedentary behavior patterns for adolescents. Further empirical study is needed to determine how the clusters might be used to target interventions to different segments of the adolescent population.

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Paper Session #7 4:06 PM–4:24 PM

SEDENTARY BEHAVIOR PATTERNS AMONG ADOLESCENTS

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There is evidence that reducing sedentary behavior time can be an effective weight loss strategy for youth independent of physical activity levels. However, not all sedentary behaviors should be reduced (e.g., homework, reading). Additional research on how adolescents spend their time overall and whether certain behaviors cluster together would be helpful for program development. Questionnaires were completed by 877 adolescents (54% female, mean age=12.7 [range 11-15], 60% Caucasian). Estimates of time spent in 6 sedentary behaviors (TV, phone, computer, listening to music, homework, and reading) were cluster analyzed resulting in 4 clusters that replicated well between two random sub-samples. Clusters were labeled ‘Low’ (low levels of all sedentary behavior), ‘Medium’ (moderate levels of all sedentary behaviors), ‘Selective High’ (high levels for TV, computer, and phone only) and ‘High’ (high levels of all sedentary behaviors). One-way ANOVAs revealed significant differences by cluster for gender (p<.002), age (p<.002), and BMI (p<.001). More boys were classified as ‘Selective High’, more older adolescents were classified as ‘Medium’, and those with highest BMIs were classified as ‘High’. Significant differences also emerged for minutes of moderate and vigorous activity (p<.01) and fiber intake (p<.01) with the ‘Low’ cluster reporting healthier behaviors. These results suggest a limited number of distinct sedentary behavior patterns for adolescents. Further empirical study is needed to determine how the clusters might be used to target interventions to different segments of the adolescent population.

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Paper Session #7 4:24 PM–4:42 PM

ENVIRONMENTAL DETERMINANTS OF SEDENTARY BEHAVIOUR: LISTENING TO YOUNG PEOPLE

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The need to reduce sedentary behaviour in adolescent populations in favour of more physically active alternatives is a public health priority. Interventions should be based on research that identifies determinants and potential influences on behaviour. Few studies have been carried out into adolescent sedentary behaviour and even fewer have looked at environmental determinants. Research has predominantly focussed on cross sectional and experimental designs, however, it is argued that rarely have young people been asked to discuss and provide their perceptions on why they participate in sedentary behaviour. Eighteen focus groups (n=6 – 8 per group) were undertaken with UK adolescents aged 11-16 years in order to gain insight into their perceived physical and social environments and how this may influence sedentary behaviour. Each single-sex group met 3 to 4 times over a 4 month period. Preliminary analysis showed the home environment promotes a wide range of sedentary behaviours particularly technology based choices that were seen as preferable to physically active behaviours. Participants cite neighbourhoods as dangerous, facilities as poor, inappropriate, inaccessible, and expensive to explain spending a great deal of leisure time in the home environment. Parents were cited as a major influence on sedentary behaviour by restricting participants to the home environment, insisting on their use of motorised transport, and not discouraging sedentary behaviour. Adolescents also expressed peer pressure and feelings of inertia as reasons for their sedentariness. Understanding adolescents perceptions of their physical and social environments and how they determine sedentary behaviour may be seen as central to the success of interventions aimed at reducing sedentary behaviour.

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Paper Session #7 4:42 PM–5:00 PM

A LONGITUDINAL INVESTIGATION OF PHYSICAL ACTIVITY AND HEALTH BEHAVIORS IN ITALIAN UNIVERSITY STUDENTS

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This study is part of a program of research examining the relations linking physical activity and health behaviors in two groups of Italian university students, namely, students enrolled in programs related to sports (e.g., physical education) and students enrolled in programs unrelated to sports (e.g., psychology). In particular, the study examined: a) group and gender differences in physical activity levels and health behaviors, b) the relative stability of individual differences in these behaviors over time, c) the longitudinal contributions linking physical activity and health behaviors, and d) the possible role of demographic characteristics and health, appearance and fitness orientation in moderating the magnitude of these relations. 286 sport and 310 non-sport students completed a series of questionnaires including the International Physical Activity Questionnaire, a Health Behavior Questionnaire, and the Multidimensional Body-Self Relations Questionnaire. One year later, 65 sport and 60 non-sport students completed the questionnaires a second time. Data from both assessments indicated that the sport students exercised more, had a healthier diet, and were less likely to smoke or drink than the other students. Longitudinally, individual differences in physical activity, diet, and health-risk behaviors were remarkably stable, whereas differences in safety practices were not. A higher level of physical activity at time one contributed to a greater reduction in smoking and drinking at time two, and a healthier diet at time one promoted a higher level of physical activity at time two. Finally, these effects varied by gender and fitness orientation.

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Relationship maintenance behaviors are approaches couples use to sustain or enhance their relationships in the face of a shared stressor. Canary and Stafford (1992) have identified maintenance strategies involving relationship-oriented discussions (openness, assurances) and interaction behaviors (positivity, network, tasks) that are associated with conflict resolution, commitment, and marital satisfaction in non-cancer samples. Use of these strategies may be helpful for couples facing lung cancer; research indicates lung cancer patients have more problems with communication and interaction with their spouses than patients with other cancers that may increase their risk for conflict and relationship distress.

This study examines the patterns of association of relationship maintenance strategies with psychological distress (Brief Symptom Inventory) and marital functioning (Dyadic Adjustment Scale) among 80 newly diagnosed lung cancer patients and their spouses. For both patients and spouses, multilevel modeling analyzes using SAS Proc Mixed showed significant negative associations for all five maintenance strategies with psychological distress (r's < 0.01). Significant positive associations were also found for positivity, network, and tasks with marital functioning for patients and spouses (r's < 0.01). However, patients were significantly more likely than their spouses to report greater marital functioning when they also reported greater openness (F(1,72) = 5.92, p < 0.02) and assurances (F(1,72) = 8.0, p < 0.05), highlighting the potential value of relationship-oriented discussions as a shared coping strategy for couples facing lung cancer. These results underscore the importance of examining the pattern of associations of relationship maintenance strategies with both individual psychological and marital functioning.

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Paper Session #8 4:42 PM–5:00 PM

DEVELOPMENT OF A NEEDS ASSESSMENT OF FAMILY CAREGIVERS-CANCER (NAFC-C) SCALE

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Purpose: Disease is often characterized as present or absent. For many conditions there is a spectrum of illness, and the definition of disease is based on the identification of a point along a continuum. There has been a trend toward identification of disease earlier in the process by moving thresholds downward. We evaluated recent guidelines that have defined prehypertension (SBP >120 mmHg), impaired fasting glucose (plasma glucose >100 mg/dl) and mild hypercholesterolemia (LDL >100 mg/dl).

Method: Data from the Third National Health and Nutrition Examination Survey (NHANES-III) were used to estimate the prevalence of prehypertension, impaired fasting glucose, and mild hypercholesterolemia in the US population age 50 years or older.

Results: We estimate that 37% of the 62 million Americans age 50 or older have fasting glucose levels greater than 100 mg/dl, 40% of the population have systolic blood pressures greater than 120 mmHg, and 73% have LDL cholesterol >100 mg/dl. 99% of American adults age 50 or older were not met were more likely to be clinically depressed. These findings provide useful information about the multidimensional nature of caregivers’ needs and for developing services to help them meet their needs while providing care.

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Paper Session #9 3:30 PM–3:48PM

PREVALENCE AND COST IMPLICATIONS OF CHANGING DEFINITIONS FOR CHD RISK FACTORS

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Purpose: Changes in diagnostic thresholds will significantly expand the health care market. Our analysis suggests that virtually the entire population of adults older than age 50 years or older will be eligible for a diagnosis under the new definitions of just three conditions. Although changes in diagnostic thresholds are likely to have profound impacts on the costs of health care, their effects upon population health have not been comprehensively evaluated.

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Citation Paper

Paper Session #9 3:48 PM–4:06 PM

MODELING COST EFFECTIVENESS OF A BRIEF INTERVENTION FOR ALCOHOL INVOLVED YOUTH IN A HOSPITAL EMERGENCY DEPARTMENT

Charles J. Neighbors, Ph.D., M.B.A.,1 Nancy P. Barnett, Ph.D.,2 Damaris J. Rohsenow, Ph.D.,2 Suzanne M. Colby, Ph.D.,2 and Peter M. Monti, Ph.D.2
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Alcohol imposes a large public health toll on youth, being implicated in a disproportionate share of youth traffic fatalities. Brief interventions in the emergency department (ED) show promise to reduce alcohol related health-risk behaviors targeting high risk-taking youth. However, to date cost-effectiveness studies of brief alcohol interventions have not used a public health outcome comparable across diverse medical interventions—Quality Adjusted Life Years (QALY) gained. This study models the cost-effectiveness of a motivational intervention shown to reduce drinking and driving among youth aged 18 to 19 treated in an ED. First, using multiple national data sets—the Fatality Analysis Reporting System and the National Household Survey on Drug Abuse, alcohol attributable traffic fatality rates were estimated for drinking and driving youth stratified by gender, seatbelt use (a proxy for risk-taking proclivity), and drinking level. Second, using the alcohol attributable rates, clinical trial results, national life tables, and quality of life weights from the National Health Interview Survey, we estimated the societal costs per QALY saved. The brief intervention’s cost-effectiveness ratio was $5,864/QALY, with a lower ratio for males ($2,531/QALY) than females ($21,292). Sensitivity analyses indicated that results were robust in terms of variability in parameter estimates. This brief intervention represents a good societal investment in relation to other commonly adopted medical technologies. In addition, these methods exemplify a transdisciplinary approach to showing the economic value of behavioral interventions.

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Paper Session #9 4:06 PM–4:24 PM

ECONOMIC ANALYSIS OF THE MEDITERRANEAN LIFESTYLE PROGRAM

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Economic analysis and cost-effectiveness analysis (CEA) are becoming an important component of health care policy making decisions. CEA’s are relevant in the field of behavioral medicine given that policy makers are increasingly demanding data on the effectiveness of various behavioral interventions relative to their associated costs. This paper describes the evaluation of the costs and cost-effectiveness of delivering the Mediterranean Lifestyle Program (MLP), relative to usual care (UC).

Using data collected during of the MLP project, we estimated intervention costs for the first six months for the MLP intervention group relative to the randomized UC condition. Costs include the recruitment of staff and participants; time of educators, dietitians, physicians, exercise physiologists, meeting leaders, support group leaders; 3-day retreat, training, phone charges, and supplies; and facility space for group meetings. Sensitivity analyses were conducted using alternative discount rates, variation in both labor inputs and market wage rates, change in the incremental improvement in CHD risk, and differences in the size and characteristics of the target population.

A total of 163 participants were randomized into the MLP condition. Total intervention costs were estimated to be $130,871, for a cost of $803 per MLP participant relative to UC for the 6month period. This translates to cost of $2,361 per unit change in CHD risk measured as average one-point reduction in hemoglobin A1c. Relative to other measured improvements, this corresponds a cost of $2,170 per unit reduction in BMI and a cost of $400 per unit improvement in Problem Areas in Diabetes Quality of Life Self Care Summary Score.

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Paper Session #9 4:24 PM–4:42 PM

ONE-YEAR OUTCOMES FOR SIX OREGON TOBACCO QUITLINE INTERVENTIONS

Jack Hollis, Ph.D.,¹ Tim McAfee, M.D., D.M.P.H.,² Michael Stark, Ph.D.,¹ Jeffrey Fellows, Ph.D.,¹ Susan Zbikowski, Ph.D.,² and Karen Riedlinger, M.P.H.¹
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Cessation rates are improved through NRT in combination with behavioral treatment. Little is known; however, about the effectiveness and cost-effectiveness of NRT in combination with varying intensities of behavioral treatment. This 3x2 randomized trial compared Brief (one 15-minute call), Moderate (one 30-minute call with a follow-up), and Intensive (up to 5 proactive calls) telephone counseling with and without an offer of free nicotine patches (NRT) among 4,610 Oregon Tobacco Quitline callers.

Treatment arms were similar in terms of sex, race, marital status, and education. Phone contacts increased across the Brief (no NRT=1.0/NRT =1.3), Moderate (1.7/2.0), and Intensive (2.5/2.9) arms. Total intervention minutes also increased across the Brief (27/31), Moderate (48/54), and Intensive (60/67) arms. When offered, NRT was accepted and sent to 80% in each of the three NRT cells. Tobacco 30-day point prevalence was assessed for 69% at 12 months, with missing data coded as smoking.

Quit rates varied from a low of 12% for Brief-No NRT to a high of 21% for Intensive-NRT. In a logistic model, abstinen was higher for the Moderate (17%, OR=1.22, CI=1.01-1.49) and Intensive (18%, OR=1.29, CI=1.07-1.57) arms, compared to Brief (14%), and for NRT (19%, OR=1.58, CI=1.34-1.85) versus no NRT (13%). Incremental costs per quit, relative to Brief-No NRT, ranged from $1857 (Intensive-NRT) to $2659 (Intensive-No NRT). In a real world quitline setting, follow-up counseling and NRT both increased long-term quit rates and were highly cost effective.

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Paper Session #9 4:42 PM–5:00 PM

THE INFLUENCE OF PRICE ON PURCHASE OF HEALTHY AND UNHEALTHY ALTERNATIVES IN YOUTH

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Treatment and prevention of pediatric obesity requires youth to choose healthy rather than unhealthy foods and activities. Price is one factor that influences the choice to eat certain foods and do certain activities. Subsidizing the cost of fruits and vegetables and access to physical activities while taxing less healthy foods and access to sedentary behaviors could have a positive influence on youth’s health behaviors. Thirty-two 10-12 year-old youth differing in overweight status and access to sedentary behaviors could have a positive influence on youth’s and vegetables and access to physical activities while taxing less healthy foods rather than unhealthy foods and activities. Price is one factor that influences the demonstrate that price influences purchases of healthy and unhealthy alternatives in children and their parents. Increasing the cost of unhealthy alternatives did not increase choice of healthy alternatives in parents or children.

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Paper Session #10 3:30 PM–3:48 PM

COLON CANCER BELIEFS BY STAGE OF BEHAVIOR ADOPTION

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The primary aim of this randomized intervention study was to increase colorectal cancer screening among non-adherent persons, 50 years or older. The intervention was based on an integration of the Transtheoretical (TTM) and Health Belief Models to identify beliefs by TTM stage and tailor education to individual stage and beliefs.

Once recruited from a large HMO, participants (N=206) were randomly assigned to one group: 1) tailored print communication, 2) non-tailored print communication, or 3) usual care. Data were collected via telephone at baseline and 2 months post-intervention. The sample was primarily Caucasian, female middle class, with at least a high school education; mean age was 61 (SD=8).

Several beliefs differed by stage of behavior adoption. Knowledge and beliefs about perceived susceptibility, benefits, barriers, and self-efficacy were assessed for each screening test. For stool blood test, there were significant differences in barriers (F = 9.48, p<.001), benefits (F = 3.17, p <.01), and self-efficacy (F = 2.39, p<.05). Precontemplators had lower benefits and self-efficacy, and higher barriers than those in action. Sigmoidoscopy barriers (F = 9.05, p<.001) and self-efficacy (F = 2.58, p<.05) differed by stage; precontemplators had higher barriers and lower self-efficacy than contemplators and actors. Individual barriers and benefits items specific to each stage will also be identified. These results are being used to guide intervention development targeted to stage and tailored to individual beliefs.

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Paper Session #10 3:48 PM–4:06 PM

USING SOCIAL COMPARISON INFORMATION TO AFFECT COLORECTAL CANCER RISK PERCEPTIONS

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People typically believe their health risks are lower than those of others (i.e., optimistic bias). We sought to increase perceptions of colorectal cancer (CRC) risk among adults aged 50-75 who were nonadherent to fecal occult screening (FOBT). 141 participants were randomized to receive information about: 1) general CRC risk factors (control), 2) general and tailored CRC risk factor feedback with and without an offer of free nicotine patches (NRT) among 4,610 Oregon Tobacco Quitline callers. The primary analysis was a 2x3 factorial design to examine the effect of CRC risk factors and NRT on CRC risk perceptions. The primary analysis was a 2x3 factorial design to examine the effect of CRC risk factors and NRT on CRC risk perceptions. The primary analysis was a 2x3 factorial design to examine the effect of CRC risk factors and NRT on CRC risk perceptions. The primary analysis was a 2x3 factorial design to examine the effect of CRC risk factors and NRT on CRC risk perceptions. The primary analysis was a 2x3 factorial design to examine the effect of CRC risk factors and NRT on CRC risk perceptions. The primary analysis was a 2x3 factorial design to examine the effect of CRC risk factors and NRT on CRC risk perceptions.
Colorectal cancer screening has the potential to reduce mortality from the disease by as much as 33%. Despite this, adherence to colorectal cancer screening is poor and cost-effective methods of promoting uptake are urgently required. Judgement and decision making theorists argue that people are more likely to engage in disease detection behaviours, such as screening, if the costs of not doing a particular behaviour are emphasized, as opposed to the gains. Consistent with this, previous research has shown loss-framing can dramatically enhance the uptake of mammography. However, to date, the impact of loss and gain-framing on screening adherence has only been explored among low income and ethnic minority groups.

The aim of the present study was to test whether emphasising the losses vs. the gains associated with screening would affect uptake of flexible sigmoidoscopy screening in a general population sample. Three hundred and ninety people, aged 60-64 and identified from General Practice lists, were invited for flexible sigmoidoscopy screening as part of a UK feasibility study into nationwide endoscopy screening. Participants were randomly assigned to receive either a gain-framed or a gain-framed information leaflet about the screening test along with their timed and dated screening appointment. Contrary to predictions, people who received a loss-framed leaflet were less likely to attend screening than those who received a gain-framed leaflet (47.5% vs. 57.3%). Future research needs to gain a better understanding of the conditions under which loss-framing is likely to help or hinder adherence to screening recommendations.

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Paper Session #10 4:06 PM–4:24 PM

ENCOURAGING INDIVIDUALS WITH CANCER TO DISCUSS RCTs WITH THEIR PHYSICIAN: AN IMPORTANT ROLE FOR TAILORED MESSAGES

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Low recruitment rates (i.e., <5%) in cancer-related randomized controlled trials (RCTs) delay the implementation of promising new therapies. Encouraging individuals to discuss RCTs with their physician may be a means of increasing enrollment. The purpose of this study was to examine whether messages tailored for information processing style (IPS; enjoyment of thinking deeply) increase participants’ intentions to ask their physician about RCTs and whether these intentions predict subsequent inquiry about RCTs. Participants were 448 individuals with cancer who called the NCI Cancer Information Service. At the end of the call, IPS was assessed and participants were randomly assigned to receive a straightforward, factual (i.e., deep thought avoiding) or an alternative, vividly detailed (i.e., deep thought involving) message. Participants were mailed a similarly-tailored brochure. Intentions to discuss RCTs with a physician were measured at baseline and Week 1. Whether participants inquired about RCTs was assessed at Week 6. A hierarchical linear regression analysis with posthoc analyses on the IPS x message type interaction (R²change=.03, p<.02) revealed that mixed messages increased intentions only among individuals who preferred to avoid deep thought, F(model=4,138)=10.89, p<.001. In turn, a logistic regression analysis indicated that greater intentions were associated with a greater likelihood of asking about RCTs, OR=1.95; Chi-square (1, n=97) = 13.20, p<.001. Thus, for individuals who prefer to avoid deep thought, matched messages bolster intentions – a determinant of subsequent discussion of RCTs with a physician.

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Paper Session #10 4:42 PM–5:00 PM

LEISURE TIME PHYSICAL ACTIVITY AMONG LATINOS: SOCIAL COGNITIVE CORRELATES

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Despite the benefits of leisure time physical activity (LTPA), Latinos are reported to be highest among all ethnic groups in leisure time inactivity. Identification of the psychosocial correlates of LTPA among Latinos has considerable health implications, as these correlates can be targeted to improve LTPA rates. The present study examined levels of LTPA and their relationship with self-efficacy, social support, and importance, and the extent to which the variables were influential for Latinos with high levels of LTPA and non-LTPA (occupational/domestic activity). Data were obtained from 153 Latinos (n = 86 female, n = 67 male). Comparisons were made between Latinos who engaged in high levels of LTPA and those who engaged in low levels of LTPA. Additionally, alternative analyses of Latinos with little or no LTPA but high non-LTPA levels were compared with those engaging in high levels of LTPA but little or no non-LTPA. Results revealed that individuals reporting high levels of LTPA had significantly greater exercise and barriers self-efficacy and received greater social support to exercise from friends. Additionally, Latinos with high levels of LTPA placed greater importance on physical activity, however, when levels of non-LTPA were accounted for, significant differences in importance were eradicated. These results support previous research that self-efficacy and social support are correlates of LTPA in Latinos and present original results that those Latinos who engaged in high levels of LTPA placed greater importance on physical activity. Physical activity interventions targeting sources of self-efficacy and increasing social support should be effective in increasing LTPA of Latinos.

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Paper Session #11 3:48 PM–4:06 PM

A STAGE TARGETED PHYSICAL ACTIVITY INTERVENTION AMONG A PREDOMINANTLY LOW-INCOME AFRICAN AMERICAN PRIMARY CARE POPULATION

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Despite the numerous health benefits, there is a high prevalence of physical inactivity and associated chronic diseases in the U.S., particularly among low income African Americans. Past studies indicate that mailed, stage-matched physical activity promotion materials are effective, inexpensive, and show potential for reaching hard to reach groups. However, this has not been examined among low-income African Americans. The current study utilized a low-cost, mailed intervention to promote physical activity among a low income African American primary care population (N=207). The sample was predominantly female (82.6%), African American (69.1%), and overweight (81.3%). At baseline, all participants completed a demographic questionnaire, a 7-day physical activity recall, and stage of exercise scale. The participants were then randomly assigned to intervention (n=105) or control group (n=102). One week later, the intervention group received individually tailored, stage-matched physical activity information and the control group received a brochure on the benefits of a low-sodium diet. Intervention group (M=6.39, SD=12.09) reported significantly larger increases in physical activity than the control group (M=1.66, SD=9.63) from baseline to one month follow-up (t(142)=4.38, p<.001). Intervention participants were more likely to report progression through the exercise stages of change at follow-up than the control group participants (X²(1, N=207)=17.7, p<.001). These results suggest that individually tailored stage-matched mailed materials can serve as a low-cost, minimal effort method for promoting physical activity among low-income African Americans.

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Paper Session #11 4:06 PM–4:42 PM

THE EPIDEMIOLOGY AND SOCIOECOLOGICAL DETERMINANTS OF PHYSICAL ACTIVITY AMONG MEXICAN-AMERICANS

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Little is known about physical activity (PA) in low-income Mexican-American populations. Data from a randomized household survey of 933 Mexican-American adults in two South Texas counties documented current PA levels and identified personal and environmental correlates. Most respondents were United States-born, female, younger, less educated, and poorer. While the average BMI was 29.64, with 34.3% of the sample falling in the “overweight” category and 40.4% ranking as “obese,” 64.0% rated their health in the preceding month as “good” or better and 61.2% had seen their primary care provider in the past year. Although nearly half (47.4%) reported exercising at a moderate intensity for 30 minutes or more at least once per week, less than 20% reported meeting recommendations for being active at least three times per week. Preliminary descriptive analysis revealed that female gender, poorer self-perceived health, having been diagnosed with hypertension or alcohol/substance abuse, higher BMI, and seeing a primary care provider on an irregular basis negatively correlated with PA. Factors that positively correlated with PA were higher levels of education and income, access to medical services, and previously having had a heart attack. Neither age nor country of origin related to PA and, contrary to most current literature, perceived environmental factors such as having low crime rates, less environmental pollution, and access to recreational activities showed no significant relationship to PA levels. To design appropriate interventions for Mexican-Americans, it is crucial that the determinants of PA in this population be understood from a socioecological perspective.

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Paper Session #11 4:42 PM–5:00 PM

MEASUREMENT OF PHYSICAL ACTIVITY AND BASELINE DATA FROM THE SOUTHERN COMMUNITY COHORT STUDY (SCCS)

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The SCCS is a prospective study in the southeastern United States designed to analyze disparities between 40-79 year old African Americans and Whites in chronic disease. The sample included 20,953 participants (58% female, 83% African American, mean (S.D.) age = 52 (8.8) years, 62% < $15,000/year income). Measures of physical activity patterns include time spent in sedentary behaviors (5 items), and three types of active behavior: work (occupation and housework), walking, and sports/exercise. For active behaviors, participants reported time spent in intensity specific categories (e.g., light, moderate, vigorous). Behaviors are weighted by METs and summed to derive measures of energy spent in walking, sports/exercise, and daily work (MET-hrs/d). Analysis of covariance examined gender and racial differences in activity patterns. Age and income were significant covariates in all models (p<0.0001). There were gender effects for sedentary activities (p<0.04), walking (p<0.01), sports (p<0.0001), and work (p<0.0001) with males expending more energy in walking, sports, and work and females spending more time in sedentary activities. There were racial differences in sedentary activities (p<0.004) and walking (p<0.05) and a gender by race interaction effect (p<0.05) for sport/exercise. African Americans spent more time in sedentary behaviors than whites and less energy walking. Overall, 75% of the sample reported no sports/leisure activity. African American men were more active in sports/exercise than white men, while there was little difference for women. The SCCS cohort is quite sedentary with work being the largest source of energy expenditure.

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Paper Session #12  3:30 PM–3:48 PM

BENEFIT-FINDING PREDICTS HAART ADHERENCE AND, INDIRECTLY, HIV VIRAL LOAD IN WOMEN, BUT NOT GAY MEN

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Benefit-finding (BF) has been linked to positive outcomes in medical patients; however, its generalizability across populations and potential mechanisms remain untested. We examined the factorial invariance of BF and explored relationships among BF, HAART adherence, and HIV viral load (VL) in samples of HIV+ women (n= 138) and gay men (n= 139). Mean age was 40 years (26% Caucasian, 54% African-American, and 14% Hispanic). The Benefit Finding Scale (BFS) measured BF and the ACTG assessed adherence. Latent variables for adherence and VL were specified by combining four assessments taken over a 15-month period. We summed baseline BFS items with similar content to create indicators of a latent factor of BF. Multigroup CFA was used to establish factorial invariance of BF across samples [CFI= .97; RMSEA= .06]. A structural equation model specifying BF predicting both adherence and VL had relatively good fit, when the paths among BF, adherence, and VL were allowed to differ between men and women [CFI= .96; RMSEA= .04]. Factor loadings for all latent variables were constrained to be equal. The path between adherence and VL was significant (p<.05) for both groups [beta(women)= .60; beta(men)= .42]. The path between BF and adherence was significant (p<.05) only for the women [beta= .26; beta(men)= .16]. When this path was constrained to be zero for the women, the resulting change in chi square (.619 (1)) was nonsignificant. Results suggest that adherence mediates the relationship between BF and VL in HIV+ women, but not gay men.

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Paper Session #12  4:06 PM–4:24 PM

THE IMPACT OF SOCIAL SUPPORT, DEPRESSION AND SELF-EFFICACY ON MEDICATION ADHERENCE IN PERSONS WITH HIV

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This study examined the mediating role of 1) self-efficacy on predictions between both depression and social support, and medication adherence 2) depression on prediction between social support and self-efficacy in persons with HIV (PWHIV). Baseline data from “Adherence to Protease Inhibitors” (RO1 NR04749, PI: J. Erlen) were used. The 215 PWHIV (male= 145, female=70) aged 19-61 (mean= 40.7, SD= 7.58) were recruited from multiple sites in Pittsburgh and through self-referrals. The participants were measured on Beck Depression Inventory, Interpersonal Support Evaluation List, the Erlen HIV Self-Efficacy Scale of Medication Taking, and the Morisky Self-report Medication Taking Scale. Structural equation modeling (EQS version 6.1) was used to estimate both direct path (regression coefficients) and indirect effect. Results indicated that self-efficacy fully mediated the prediction of medication adherence by depression (beta= .16; p<.05) for both groups [beta(women)= .26; beta(men)= .16]. The full combined model, which omitted the direct prediction of medication adherence by depression and social support, showed that self-efficacy mediated the prediction of medication adherence by depression and social support, and depression mediated the prediction of self-efficacy by social support (beta= .34, p<.05). This model had a good fit (CFI= 1.00, RMSEA= .00) understanding the mediating role of self-efficacy and depression on the relationship between social support and medication adherence is necessary when developing interventions for PWHIV. Future studies need to test the moderating effect of gender, ethnicity and risk factors for HIV on this model.

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Paper Session #12  3:48 PM–4:06 PM

CHANGES IN ATTITUDES TOWARD ANTIVIRAL MEDICATIONS: A COMPARISON OF WOMEN LIVING WITH HIV/AIDS IN THE PRE-HAART AND HAART ERAS

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Highly active antiretroviral therapy (HAART) has been heralded as profoundly changing the lives of HIV-infected individuals, yet little research has examined whether patients’ views of antiviral medications have changed. To examine this issue, data from focused interviews with two ethnically diverse samples of women living with HIV/AIDS (N = 158) were compared: one in the pre-HAART era (1994-96) and a second in the HAART era (2000-03). The two samples were matched on race/ethnicity, disease stage, age, time since diagnosis, and injecting drug use history. Thematic content analysis of the women’s views of antiviral medication revealed notable differences between the women in the two eras. Women in the pre-HAART era held highly negative attitudes toward antiviral medications, perceived few, if any, benefits from them and viewed side effects as intolerable. In contrast, women in the HAART era were less likely to report negative attitudes, which were often balanced by more frequent reports of perceived benefits. They were also more likely to view side effects as tolerable and manageable. African American women in both eras were more likely to hold negative attitudes and less likely to perceive benefits than White and Puerto Rican women. These findings suggest that views of antiviral medication have improved since the advent of HAART, but that negative attitudes and side effect concerns remain which should be addressed in interventions to promote treatment acceptance and adherence.

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Paper Session #12  4:24 PM–4:42 PM

THE RELATIONSHIP BETWEEN SOCIOECONOMIC STATUS, ADHERENCE TO DAILY PRESCRIBED MEDICATIONS AND DAILY PARENTING HASSLES IN A CHRONICALLY ILL PEDIATRIC POPULATION

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The purpose of the study was to examine the relationship between socioeconomic status, preventative medical adherence and stress related to daily parenting challenges in families with children diagnosed with asthma. Participants included 56 children (34 boys and 22 girls) 5 to 12 years of age (M= 8.42 years, SD=2.14) with mild-to-severe asthma and their primary caregivers. Participants were recruited from three pediatric asthma clinics. Primary Caregivers completed the Hollingshead Two or Four Factor (Index of social status), regarding socioeconomic status and primary caregiver’s education level. Primary caregivers also completed the Parenting Daily Hassles Scale to assess the intensity with which they perceive daily parenting challenges as hassles. Preventative medication adherence was monitored for a six-week period via weekly parental reportings or with the use of a MDILog device. Results suggest that prescribed daily medical adherence was related to socioeconomic status (r = .30, p<.03) and primary caregiver education (r = .47, p<.0003). Additionally, a trend is seen between parenting daily hassles and medical adherence (r = -.28, p = .10). In a stepwise regression analysis, parent daily hassles accounted for an additional 4% of the variance in medical adherence than did primary caregiver’s education level alone. Families with a child who have a chronic illness are faced with increased challenges associated with parenting tasks and challenging child behaviors. It is important to examine socioeconomic factors and daily parenting challenges that may influence medical adherence in order manage a child’s medical condition.

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MEDICATION ADHERENCE IN DEPRESSED AND NON-DEPRESSED POST-ACUTE CORONARY SYNDROME PATIENTS

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Depressive symptoms are a strong risk factor for mortality in post-Acute Coronary Syndrome (ACS) patients. Poor adherence to prescribed medication has been proposed as a mediator in this relationship.

We compared electronically monitored medication adherence [Medication Event Monitoring System (MEMS)] in a sample of N = 30 non-depressed patients with a Beck Depression Inventory (BDI) score of 0-4 and N = 33 mildly to severely depressed patients. Upon hospital discharge, patients were provided with a 90-day supply of their prescribed aspirin dosage in a MEMS bottle. MEMS is an electronic device stored in the cap of a pill bottle that records the date and time whenever the cap is opened. Data from the caps was collected 1 and 3 months after hospital discharge.

The mean number of monitored days was 73 (SD = 22). The mean percentage of correct number of dosages taken was 91% (SD = 10) in non-depressed patients and 76% (SD = 26) in depressed patients (Mann-Whitney U = 323; p < .02).

This is the first study to show that post-ACS patients with elevated in-hospital depressive symptoms are less adherent in taking their prescribed medication in comparison to non-depressed patients. Future studies will determine if this difference can – at least partially – account for the difference in mortality between these two groups.

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PHYSICIAN-DELIVERED SMOKING-CESSATION COUNSELING: PATIENT VERSUS PHYSICIAN ASSESSMENTS

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In evaluating the effectiveness of physician-delivered smoking-cessation counseling, it is important to determine the extent to which physicians adhere to the PHS smoking-cessation guidelines during the medical encounter. We compared patient versus physician reports on use of the guideline’s 5-A’s, and examined the degree to which these two sets of ratings predicted smoking outcomes six months post-medical encounter, including seven-day point-prevalence-abstinence, number of quit attempts, and longest quit attempt. Seventy primary care physicians and 376 of their patients who smoked completed post-visit questionnaires rating use of the 5-A’s: Asked smoking status; Advised to quit, Assessed readiness, Assisted in quitting, and Arranged follow-up. Factor analysis revealed one factor for the Physician 5-A’s, and two factors for the Patient 5-A’s (Factor 1: Ask, Advise, Assess; Factor 2: Assist, Arrange). Correlations between the Physician and Patient factors were not significant, the correlation between the two Patient factors was r=0.54 (p<0.0001). Quit attempts and days quit were analyzed via mixed linear modeling, seven-day point-prevalence-abstinence utilized a generalized linear model with a logit link function; both analyses clustered patients within physician offices. Significant baseline covariates (Fagerstrom, years smoked) were retained in the analyses. Results showed that patients in the intervention condition were 1.96 times more likely than controls to be smoke-free (X² = 4.02, p < .05). Abstinence rates were 14% for intervention and 7% for control. Intervention patients also surpassed controls on “number of days quit” (18.1 vs 10.8, p<.05), and on forward movement through stages of change (F=5.06, df=318, p<.05), but not on number of quit attempts. Use of a brief computer-based smoking cessation intervention that targets both patients and physicians in the primary care setting resulted in increased abstinence 6 months post-exposure.

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RANDOMIZED CONTROLLED TRIAL OF A BRIEF COMPUTER-TAILORED SMOKING CESSION INTERVENTION IN THE PRIMARY CARE SETTING

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We evaluated the effectiveness of a brief, computer-based primary care physician (PCP)-delivered intervention. Seventy PCPs and their 376 patients who were smokers were randomized to a computer-based intervention or assessment-only. Intervention physicians received a 40-min smoking-cessation counseling training session. Intervention physicians and patients received a 1-page tailored report summarizing the patient’s smoking habit and specific recommendations to aid in quitting, and encouragement to discuss these. The primary outcome was 7-day point-prevalence abstinence assessed by telephone 6 months post-exposure. Secondary outcomes were number of days quit, number of quit attempts, and stage of change. Point-prevalence abstinence was analyzed using a generalized linear model with a logit link function with physician as the clustering variable. Secondary outcomes were analyzed via mixed linear modeling accounting for clustering of patients within physician offices. Significant baseline covariates (Fagerstrom, years smoked) were retained in the analyses. Results showed that patients in the intervention condition were 1.96 times more likely than controls to be smoke-free (X² = 4.02, p < .05). Abstinence rates were 14% for intervention and 7% for control. Intervention patients also surpassed controls on “number of days quit” (18.1 vs 10.8, p<.05), and on forward movement through stages of change (F=5.06, df=318, p<.05), but not on number of quit attempts. Use of a brief computer-based smoking cessation intervention that targets both patients and physicians in the primary care setting resulted in increased abstinence 6 months post-exposure.

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USING A CLINICAL COLLABORATIVE TO IMPROVE THE QUALITY OF TOBACCO INTERVENTIONS WITH PREGNANT SMOKERS

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Purpose: Eighteen prenatal practices participated in the Maine Prenatal Collaborative, a quality improvement project modeled after the Institute of Healthcare Improvement efforts. The Collaborative brings prenatal practices together, fostering a team-based approach to enhance the treatment of smoking in pregnancy.

Methods: Over one year, practice Teams were asked to plan and test rapid-cycle changes, track data over time, report results and share experiences at 3 all-day Learning Sessions. Education focused on disseminating PHS Guidelines and used the Chronic Care Model to identify opportunities for practice improvements. Teams were encouraged to increase utilization of statewide treatment services, including fax referral to the Maine Tobacco HelpLine.

Results: We report results on the first cohort of 10 practices. Among 8 practices reporting data, there was improvement in identification of spontaneous quitters, smoker advice to quit, and assessment of interest in quitting. The proportion of pregnant smokers provided assistance with quitting increased from a mean of 50% to over 80%. HelpLine fax referrals increased four-fold, from n=12 before the project to n=49 during the first 9 months. Some practices faced considerable challenges performing tasks, including creating and finding office change resources. Results showed that paper-based document retaining, tracking data, and reporting results. We will present post-Collaborative assessment of team member self-reported change in tobacco intervention with pregnant women.

Conclusions: For prenatal practices motivated to use a team-based approach to test office changes, a Collaborative process can lead to quality improvement for smoking in pregnancy. Practice participation is time-consuming and requires effort on the part of team members.

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Paper Session #13 4:24 PM–4:42 PM

SMOKING STAGE OF CHANGE AND INTEREST IN EMERGENCY DEPARTMENT INITIATED INTERVENTIONS

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Objective: To examine smoking stage of change (SOC) and interest in emergency department (ED) initiated interventions among ED smokers. Methods: Consecutive adult ED patients were enrolled. Patients who were severely ill or who had altered mental status were excluded. Trained research assistants interviewed patients for demographics, smoking/quit history, SOC, nicotine dependence, self-efficacy, and interest in ED-initiated counseling. Univariate analyses predicting SOC and interest in counseling included chi-square, Fisher’s Exact Test, t-tests, or ANOVA. All variables significant at p<0.10 were then entered into multiple regression models predicting the 2 outcome variables. Results: Of the 1969 patients enrolled, 751 (38%) smoked. 434 (59%) were in Precontemplation, 188 (26%) Contemplation, and 112 (15%) Preparation. 434 (59%) reported being interested in ED-initiated counseling. Of 12 variables meeting criteria for entry into the regression for SOC, only 3 remained significant in the final model (p<0.01): sex, having at least 1 past quit attempt, smoking-related ED visit. Of the 5 variables meeting criteria for entry for ED-interest, 3 remained significant in the final model (p<0.01): race, SOC, age. Conclusion: Patients most likely to be prepared to quit tend to be visiting the ED for smoking-related medical problems. This high motivation state (i.e., teachable moment), combined with their high interest in ED-initiated counseling, supports efforts to promote tobacco screening in the ED. Because many Americans use the ED as a regular source of healthcare, the public health implications of this study are substantial, especially for the poor and underserved.

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Paper Session #13 4:42 PM–5:00 PM

SMOKING CESSATION AMONG PATIENTS IN THE CHEST PAIN OBSERVATION UNIT

Beth C. Bock, Ph.D., 1 Bruce M. Becker, M.D., 1 Robert Partridge, M.D., 1 and Raymond S. Niaura, Ph.D. 1
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Hospitalization for cardiovascular disease can produce smoking cessation rates over 50%. However, the effect of brief hospitalization on cessation and motivation to quit is unknown. We examined the efficacy of a tailored versus a brief intervention among chest pain patients who were admitted to the Emergency Department Observation Unit for 24 hours to rule out myocardial infarction. Adult smokers (n=542) were randomly assigned to receive either brief advice (BA), or a motivationally tailored intervention (MT). All participants were offered nicotine replacement. Subjects were: 52% male; 68% white, 12% black, 10% Latino; mostly high school (35%) or college educated (22%); and smoked 18.8 (+/-12.6) cigarettes per day. At baseline, 40% had no plans to quit smoking, 9.2% planned to quit within 6 months, and 16.8% planned to quit within 30 days. Seven-day point-prevalence abstinence at 1 month was 16.2% and 26.8% in the BA and MT groups, respectively (c2(1)=6.5, p<0.01). At month 3, cessation rates were 19.3% (BA) and 29.1% (MT) (c2(1)=4.3, p<0.05). Differences were not significant at month 6. Age and risk perception were significant predictors of cessation (p<0.01). Among continuing smokers, MT subjects smoked fewer cigarettes per day than BA subjects (F=6.7, p<0.05). The chest pain observation unit provides an opportune setting for preventive health interventions for smokers. While brief advice was effective, the motivationally tailored intervention was more effective in helping patients quit smoking in the first 3 months. Interventions are needed that help sustain quits beyond six months and that can be easily integrated into routine hospital procedures.

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Paper Session #13 4:42 PM–5:00 PM

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Paper Session #14 3:30 PM–3:48 PM

THE HEALTH PSYCHOLOGIST’S ROLE IN SUPPORTING GASTRIC BYPASS PATIENTS BEFORE AND AFTER WEIGHT LOSS SURGERY

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Weight loss surgery has now been established as a safe and effective treatment for the management of morbid obesity. Increasingly, patients are pursuing surgical intervention for obesity after more conservative behavioral or pharmacological treatments have failed. Although the focus of this weight loss intervention seems largely surgical, patients and providers alike are often surprised by the degree to which behavioral factors influence success after bariatric surgery. Health psychologists have specialized training that can greatly benefit this growing surgical population. We can provide comprehensive pre-operative psychological evaluations that can uncover disordered eating behaviors, affective disorders, substance use, and adherence issues that can affect outcome after weight loss surgery. Behavioral interventions such as stress management, psychoeducation, coping skills training, exercise motivation, and communication skills generally improve the weight loss surgery patient; also, these interventions can be extended to the partner and children of the patient to take advantage of the opportunity to improve the family’s health behavior pattern. In our center, all pre-operative bariatric surgery patients are required to undergo a psychological assessment and to participate in a cognitive-behavioral group series to aid in adjustment after surgery. Our patients often utilize psychological services specifically 17% are being treated by a counselor or psychiatrist and 42% are on psychotropic medication at their initial assessment. After the evaluation, approximately 8% of our patients are delayed to receive additional psychological services prior to approval for surgery. Thus, many roles are available to health psychologists to assist patients prepare for and adjust to weight loss surgery.

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Paper Session #14 3:48 PM–4:06 PM

EATING DISORDERS AND DIABETES: LESSONS LEARNED FROM OBESE TYPE 2 DIabetics SEEKING WEIGHT LOSS SURGERY

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Although an emerging literature has begun to clarify the link between eating disorders and diabetes, most of this work has focused on Type 1 diabetics. We explored eating disorders, specifically binge eating disorder, among obese Type 2 diabetics applying for weight loss surgery (WLS). Among a random sample of 500 pre-operative patients, 23% met criteria for an eating disorder, 20% had diabetes without binge eating disorder, 9% were diagnosed with both diabetes and binge eating disorder, and 48% served as controls. The current study investigated 1) differences in eating pathology on the Binge Eating Scale, subjective perception of control over food with the Power of Food Scale, and depression reported on the Beck Depression Inventory among the three clinical groups and controls and 2) the predictors of clinical group status in a large ethnically-diverse sample of WLS candidates. MANOVAs indicated no significant differences among groups in education and BMI. The binge eating groups reported more binge eating (F = 33.9, p = .00), greater loss of control over food (F = 41.9, p = .00), and more depressive symptoms (F = 11.9, p = .00) compared to the diabetes-only group and controls. Finally, logistic regression analyses revealed that non-Caucasians were 3.5 times more likely to be diagnosed with both diabetes and binge eating disorder compared to Caucasians. We discuss the impact of these co-morbidities for ethnically-diverse patients presenting for WLS with a focus on long-term outcome.

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Chronic pain reported moderate pain severity and moderate interference in several facets of their lives as a result of the pain including impairment in daily tasks, work, social functions, and recreational activities. Participants with chronic pain endorsed significant more depressed mood on the Beck Depression Inventory (F = 9.28, p = .003), more impairment in their quality of life as measured by the Impact of Weight on Quality of Life (F = 19.08, p = .000), poorer self-esteem on the Rosenberg Self-Esteem scale (F = 5.60, p = .019), and less self-rated physical health (F = 6.81, p = .010). Thus, the majority of pre-operative weight loss surgery patients reported chronic pain and noted several areas in which their pain experience negatively impacted their overall quality of life.

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C-1

ENHANCING CORE PUBLIC HEALTH ANALYTICAL SKILLS AMONG HEALTH DEPARTMENT STAFF

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A public health workforce who is highly competent in data use and analysis is essential for ensuring an effective state health department. While epidemiologists and other technical staff are generally highly competent in data use, the degree of proficiency and skill among other health department staff varies. In addition, the distribution of data experts across the divisions and branches or a health department is widely disparate due to differing demands on data use. In this study, the Hawaii Department of Health partnered with the University of Hawaii to deliver six day-long workshops offered six times each to a broad cross-section of health department staff. Training topics included finding and analyzing data, understanding surveillance systems, presenting data and using data for planning and outcomes development. The workshops were attended by 129 staff members with the majority 55.8% attending 4 or more sessions. The majority of the attendees were technical staff (83.6%) followed by branch and division supervisors (12.3%). Significant increases were seen across each training session in self-rated analytic competencies, knowledge of data use, and self-efficacy for using the skills in practice (p < .05). All trainings were rated positively by participants. Among participants that attended at least four trainings, the percentage that rated themselves as knowledgeable or proficient on 10 public health competencies increased from a median of 29.7% to 69.6%. Ongoing evaluation is assessing the effectiveness of the training in changing job related practices.

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C-2

LESSONS LEARNED FROM TRAINING THE NEXT GENERATION OF PREVENTION PROFESSIONALS

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Expanding the pool of diverse and well-trained scientists is critical for the field of prevention research and is particularly important for advancing effective health promotion programs targeting minority populations. To meet this need, students of color should be exposed to high quality research at the earliest stages of their career. Unfortunately the demands of running effective prevention trials often leave researchers little time to devote to training and mentoring students. This paper describes the successful development and implementation of an internship program designed to train the next generation of professionals interested in promoting the health of adolescent girls.

The aims of the internship program were twofold: 1) create a salient mentoring experience for a diverse group of interested and talented students that would include their voices and experiences in the development of health promotion programs, and 2) allow prevention researchers to immerse themselves in the literature and methodologies relevant to their own research agenda and career development. This paper discusses how those two aims were met by exposing students to qualitative methodologies and presents data on pre-post change scores in students’ knowledge and confidence efficacy in conducting prevention research. Students were also mentored in career planning and advancement, engaged in discussions on the issues and contexts of adolescent girls’ lives, and lessons were conducted on ethical issues and logistical difficulties inherent in conducting prevention research. Strategies for meeting the needs of young minority students, engaging them in meaningful research activities, and incorporating their experiences into prevention research will be presented.

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C-3

USING DECISION ANALYSIS TO DESIGN A HEALTH EDUCATION CURRICULUM


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Decision Analysis is a logical probability model used to determine the potential benefits of choosing different courses of action under conditions of uncertainty. This paper applies this model to curriculum design in Health Education. Many graduate schools offer programs in Health Education. All of these programs have the same goal; educate graduates to function as competent health educators. However, there is considerable variability among the different schools’ required curricula. This paper illustrated the use of Decision Analysis to determine the probable value of including or not including specific required courses in their curriculum. A course in Public Policy Advocacy is used as an example.

Public Health organizations stress the importance of health educators being public policy advocates. However, a survey of 26 graduate-level health education-training programs catalogues shows that only 8 have public policy or advocacy as required courses in the curriculum. This leads to the question: “If competent health educators perform advocacy activities, and the schools do not teach the skills, how can or do health educators achieve this competency? For this example, two courses of action were identified: Requiring or Not Requiring a course in Public Policy Advocacy. Then, two sequential outcomes were considered: The probability of students learning public policy advocacy techniques; and the probability of graduates actually engaging in advocacy activities.

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HEALTH PROMOTION WITHIN THE WORKSITE

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The purpose of this research study was to develop, implement, and evaluate a theory-grounded worksite health promotion program. This study, collaboration between nursing, public health and the Faculty Staff Assistance Program in a metropolitan university setting, provided a worksite wellness and lifestyle program focused on empowering individuals to improve their quality of life within the worksite. A Health Fair was held in two departments with the Health Risk Appraisal serving as the needs assessment tool to diagnose individuals’ behavior, lifestyle and environment. Stages of Change were identified. The results from the Health Fair served as a department’s needs assessment to plan appropriate health education and wellness programs, activities, and events for each department. Process evaluation began as the research team coordinated evaluation of immediate effects, i.e., impact evaluation, to determine necessary modification. Outcome evaluation is currently in process to determine the epidemiological impact in individual and organizational well-being and quality of life.

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C-5

EFFECTS OF DIABETES EDUCATION ON KNOWLEDGE AND BEHAVIOR

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Many people with diabetes attend classes and meet with diabetes educators and dieticians, where they are taught diabetes self-management. The present study evaluates whether doing so increases knowledge, promotes adherence, and enhances glucose control. Eighty-eight patients with Type 1 (n=11) and Type 2 (n=77) diabetes participated (mean age=50.9). The sample was predominantly Caucasian (78.4%) and female (52.3%). Participants completed the Diabetes Knowledge Test, the Self-Efficacy sub-scale of the Multidimensional Diabetes Questionnaire, and reported their adherence to a range of diabetes regimen behaviors. Hemoglobin A1c levels were taken from medical records. Analyses indicated that neither diabetes class attendance nor meeting with a diabetes educator or dietician was significantly related to current knowledge about diabetes, self-efficacy, foot care, exercise frequency and frequency of glucose testing. Attending a diabetes class and meeting with a dietician was also not significantly related to HbA1c levels. However, diabetes class attendees ate more fruit, [t(74.34)=2.08, p<.05], and consumed lower-fat diets, [t(58.87)=2.67, p<.05]. Patients who met with a diabetes educator also ate more vegetables, [t(85)=-2.08, p<.05], and had lower HbA1c levels, [t(86)=1.99, p=.05]. Excluding participants with Type 1 diabetes did not alter results. Findings suggest that current models of diabetes education have limited effectiveness in enhancing some diabetes outcomes. Enhancements in the delivery of diabetes education may be called for. Supported by a grant from the American Heart Association.

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C-6

ESTABLISHING A COLLABORATIVE INTERDISCIPLINARY PRIMARY CARE TEAM THAT PROMOTES PHYSICAL ACTIVITY: PRELIMINARY QUALITATIVE FINDINGS

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A new model of collaborative interdisciplinary physical activity promotion in primary care has been developed (Fortier, Tulloch & Hogg, 2004). This model involves the integration of a physical activity counselor (PAC) into the primary health care team and is based on a combination of high quality evidence-based primary care health behavior change approaches (Whitlock et al., 2002; Williams et al., 2002; Swinburn et al., 1998). The purpose of this presentation is to present the new model along with preliminary qualitative findings assessing its acceptability and feasibility in Canada’s healthcare system. Seven primary care physicians and 11 physical activity specialists were interviewed about the model and particularly about perceived barriers and facilitators. Results revealed that physicians’ time constraints, lack of space for the PAC and the novelty of having this type of health care provider on the team were perceived as the main barriers to implementation of this model. In contrast, maximizing the presence and visibility of the PAC in the practice and having very brief informal conversations about patients were important facilitators. A randomized controlled trial is being conducted to determine the impact of this new approach to promoting physical activity in primary care.

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C-7

THE CASE FOR BUILDING PARTNERSHIP SYNERGY: PROCESS EVALUATION OF A PARTNERSHIP TO INCREASE CERVICAL AND BREAST CANCER SCREENING

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Because a large number of women do not undergo early detection and screening according to recommended intervals, an important segment of the population does not receive routine preventive care. The dissemination of evidence-based interventions for cervical and breast cancer screening is the optimal approach to address underserved women with inadequate access to services, lack of knowledge of the importance of regular screening, or women who live in areas without convenient and suitable screening facilities.

In 2003, a public-private partnership initiated a program for stakeholders from eight Appalachian states where cervical and breast cancer mortality is among the highest, and screening rates for these cancers is among the lowest in the United States. A two-day training was designed to capitalize on each partners’ complementary strengths and capabilities. Training also encouraged adoption of evidence-based intervention approaches. We will present the design, implementation, and findings of this pilot program from two process evaluations conducted at three and six months after the training.

Learning more about the process of disseminating evidence-based cancer screening promotion tools to public health practitioners improves our understanding of what to expect from a public-private diffusion partnership. Our evaluation results will identify successes and limitations of the partnerships’ diffusion plans so that communities reap the full benefit of evidence-based research.

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KNOWLEDGE OF COLON CANCER SCREENING
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Colorectal cancer is the third most prevalent cancer in the United States. Rates of colon cancer screening (CCS) are low, which may in part be due to misperception and lack of knowledge about CCS. This study examined the distribution of CCS knowledge and demographic, health, and healthcare covariates of CCS knowledge among adults aged 45 and older. Data were analyzed from the NCI’s Health Information National Trends Survey (HINTS), a population-based random-digit dial survey of adults in the United States. Our sample consisted of 3,291 individuals (53.8% female, 78.0% white). The CCS knowledge questions assessed whether participants had heard of FOBT (74.0%), knew the recommended start age for FOBT (25.8%), knew the recommended frequency of FOBT (39.3%), had heard of flexible sigmoidoscopy or colonoscopy (84.7%), knew the start age for sigmoidoscopy/colonoscopy (39.2%), and knew the frequency with which to have testing (12.6%). These six knowledge items were combined into a summary score reflecting total CCS knowledge (range 0-6, M = 3.75, SD = 1.83). Factors associated with higher CCS knowledge (all p < .05) included being female, white, aged 55-64, married, having higher education or income, good self-reported health, previous CCS, having healthcare coverage, having a regular healthcare provider, and having visited a healthcare provider in the past year. This study highlights the population subgroups where psychosocial determinants of CCS interventions are most in need and establishes the need for improved public health education regarding colon cancer screening.

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PSYCHOSOCIAL DETERMINANTS OF CERVICAL SCREENING
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Cervical cancer is a significant cause of mortality among Romanian women. Romania is currently the country with the highest mortality from cervical cancer in Europe. This continued rise of cervical cancer mortality in Romania is in contrast to the steady decline of these rates in Western Europe during the past 2 decades and is explained by the current absence of effective screening programs. While we currently have information on mortality and incidence of cervical cancer, to date no studies have been conducted in Romania to determine women’s beliefs, knowledge and attitudes about cervical cancer screening, and to identify the interconnectedness between screening behavior, socioeconomic status, health care system, and psychosocial factors. The aim of this study is to establish barriers to cervical cancer screening behaviors, and women’s attitudes toward different methods and programs of screening. We constructed a nationally representative sample of women aged 20 – 65 (N= 1003). To determine current attitudes, knowledge, beliefs, and personal practices regarding cervical screening was developed a questionnaire. The selection of variables was guided partly by the Health Belief Model and the Theory of Reasoned Action, which are widely used to study screening behavior. The paper will present descriptive and analytic data in order to identify the psychosocial determinants of the pathways to screening, and screening disparities as related to demographic characteristics, place of residence, socioeconomic status, psychological well-being and health locus of control. The findings will inform educational campaigns aim to increase the adherence to cervical screening programs and to encourage women to take a longer perspective on their health.

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ACCULTURATION AND CERVICAL CANCER SCREENING AMONG LATINA WOMEN
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Relative to non-Latina whites, Latina women are diagnosed at later stages of and have lower survival rates from cervical cancer. Cervical cancer incidence is two times higher among Latinas (7.8 vs. 16.3 per 100,000 population) and the mortality rate is about 40% higher (3.4 vs. 2.5 deaths per 100,000). Research on acculturation suggests that Latino culture-specific factors are associated with decreed cervical cancer screening, possibly accounting for some of the observed disparities. Other studies indicate that low socioeconomic status (SES) and “structural factors” (e.g., poor quality of health care) – not cultural factors – create barriers to screening. This study examined the relationship between language as a measure of acculturation and receipt of a pap test. Logistic regression analyses were conducted on a sample of 730 Latina women aged 18 and over (mean=40.6) who completed the 1992 Cancer Control Supplement of the National Health Interview Survey (NHIS). The NHIS consists of a representative sample of the United States population. Acculturation was measured as English language proficiency. Dependent variable was ever having received pap test. After controlling for age and SES (education and income), language was the only significant predictor of ever having a pap test (Beta=1.66). Quality of health care also predicted ever having received a pap test (Beta=1.28). We conclude that in addition to language, structural factors such as quality of health are important for the study of cervical cancer screening among Latinas.

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C-11

SOCIAL BEHAVIOUR AND RISK FOR HYPERTENSION: THE INFLUENCE OF GENDER AND SOCIAL CONTEXT
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Introduction. Numerous studies have shown risk for hypertension, as defined by higher blood pressure levels and/or a parenteral history of hypertension (PH+), to be related to hostility and to a lesser extent, submission. Relatively few studies have examined gender differences and most have typically utilised one-time questionnaires that examine general hostile tendencies. However, the blood pressure-behaviour link may differ depending on the context of the social interaction. Method: 98 working men and women (Xage = 36 yrs) reported on the behaviours they exhibited during their various social interactions over a 2-week period. Behaviours fell within Agentic/dominance vs. submissionless and communal (agreeable vs. quarrelsome/hostile) domains. Three measures of resting systolic (SBP) and diastolic (DBP) blood pressure were obtained in the laboratory at study onset. Multilevel analyses of behaviour types were performed as a function of gender, blood pressure, and PH. Analyse were done separately for interactions experienced at home, work, and during recreational activities. A p <.05 was considered significant. Results: At home: A SBP main effect, DBP X Gender, and SBP x DBP interactions emerged for the communal domain. At work: a SBP x PH x Gender interaction emerged for the communal domain. During recreational activities: a PH main effect and an SBP x Gender interaction emerged for the agentic domain. For the communal domain, a DBP x PH interaction was observed. Discussion: The relation between risk for hypertension and social behaviour is complex and depends on gender, place of interaction, and how risk for hypertension is being defined.

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**C-12**

**GENDER DIFFERENCES IN ADOLESCENT HEALTH AND LIFESTYLE FACTORS OVER FIVE YEARS**

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The cardiovascular health of American adolescents is of considerable concern. This study examined health and lifestyle variables in tenth grade boys and girls over 5 years. Since 1999, 13,000-16,000 students were assessed yearly; boys and girls were equally represented. Self-report information about health and lifestyle was collected; blood pressure (BP), height and weight were also obtained.

The data show obvious gender differences. Values for years 1 and 5, respectively, are reported in parentheses. All differences were significant (p<.05). As expected, the BMI (kg/m²) of boys (23.1; 23.4) was higher than girls (22.4; 22.5). The BP (mmHg) for boys and girls was stable with boys (122/70; 120/69) exceeding girls (115/69; 112/68). The percentage of boys with elevated BP (15.2; 12.7) was consistently higher than girls (9.4; 7.8) even though boys (63.0%; 64.6%) were more likely to engage in vigorous physical activity for 20 minutes at least 3 times/week than girls (47.6%; 46.1%). One area of improvement for both boys (45%; 52%) and girls (45%; 30%) was the reduction in sedentary activity, defined as spending more hours spent on a typical weekday in front of TVs, video games, or computer monitors.

It appears that the increased interest in adolescent health has not resulted in many notable changes. Because of gender differences in health and lifestyle behaviors, it may be more effective to use gender-specific interventions to encourage lifestyle modification to prevent future disease due to poor health habits.

Supported by NIH grant P01HL36588.

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**C-13**

**USING COMMUNITY-BASED PARTICIPATORY RESEARCH TO DEFINE THE NEEDS OF AFRICAN-AMERICAN CANCER FAMILY CAREGIVERS: THE PENN CAREGIVER PROJECT**

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Interventions for caregivers of cancer patients are often based on assumptions that may not reflect caregiver needs and interests. As a result, uptake may suffer, salient issues be missed, and interventions may not have adequate reach. These difficulties are likely magnified when caregivers from minority populations are exposed to interventions designed with majority population caregivers in mind.

To address these difficulties, we have implemented a two-phase study incorporating community participation to tailor a validated intervention to the needs and preferences of a predominantly low-income African American cancer family caregiver population. In this first phase we recruited 3 groups of African American caregivers (N=25), exposed them to the intervention, and performed qualitative debriefing interviews at one and three months post-treatment.

Data indicate that framing caregiving in terms of “burden” may not accurately reflect caregiver experience. Caregivers describe caregiving as difficult but rewarding, using terms such as “calling” or “ministry” to portray their experience. The most common needs revolve around the desire for authoritative information and access to community-based resources to improve patient outcomes, rather than a focus on the negative reactions of caregivers themselves. Participants desire interventions open to their spiritual needs that explicitly invite participation by African Americans, but do not report a strong desire for culturally specific educational materials. These qualitative data will guide the redesign of the caregiving intervention during the second phase of the study, prior to its being evaluated in a randomized trial.

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**C-14**

**G.O.S.P.E.L. CARES: A HEALTH EDUCATION PROGRAM NEEDS ASSESSMENT IN AFRICAN AMERICAN CHURCHES**

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African Americans experience a greater disease burden and are more likely die prematurely than Caucasians from problems related to cardiovascular disease (CVD) and diabetes. G.O.S.P.E.L. (Glorifying Our Spiritual and Physical Existence for Life) is a Montgomery County, MD DHHS-sponsored community-based health education program serving a group of African American churches. The G.O.S.P.E.L. Cares Needs Assessment was designed to identify congregants’ health concerns and interests. Data from initial surveys at 3 churches (N=74) were analyzed. Respondents’ mean age was 49.16 years (SD=17.38) and 48.6% were married. Approximately 2/3 worked part-time or were retired; however, approximately 1/3 had full-time or part-time health insurance. Respondents used the internet the least (15%). Respondents used social media most frequently to keep in touch with friends (48.6%) and family (42.6%). Respondents used the church/G.O.S.P.E.L. event, with diabetes (40%) being the most popular. The fewest number of participants reported attending programming on obesity (13%), despite self-reported height/weight data indicating that 78% were obese or overweight. Second only to a health care provider, the church/G.O.S.P.E.L. was the most frequently endorsed source of health information (31%), whereas respondents used television the least (5%). Respondents used the church/G.O.S.P.E.L. the most (40%), followed by a health care provider (30%), social media (20%), friends and family (15%) and the Internet (15%).

G.O.S.P.E.L. was most effective for those who were married, not smokers, with a college or some college education, with a income less than $35,000, and 30% or more of the respondents. The least effective were those with a income greater than $35,000, living with their parent(s) or friend(s), with the church/G.O.S.P.E.L. event, with diabetes (40%) being the most popular. The fewest number of participants reported attending programming on obesity (13%), despite self-reported height/weight data indicating that 78% were obese or overweight. Second only to a health care provider, the church/G.O.S.P.E.L. was the most frequently endorsed source of health information (31%), whereas respondents used television the least (5%). Respondents used the church/G.O.S.P.E.L. event, with diabetes (40%) being the most popular. The fewest number of participants reported attending programming on obesity (13%), despite self-reported height/weight data indicating that 78% were obese or overweight. Second only to a health care provider, the church/G.O.S.P.E.L. was the most frequently endorsed source of health information (31%), whereas respondents used television the least (5%). Respondents used the church/G.O.S.P.E.L. event, with diabetes (40%) being the most popular. The fewest number of participants reported attending programming on obesity (13%), despite self-reported height/weight data indicating that 78% were obese or overweight. Second only to a health care provider, the church/G.O.S.P.E.L. was the most frequently endorsed source of health information (31%), whereas respondents used television the least (5%). Respondents used the church/G.O.S.P.E.L. event, with diabetes (40%) being the most popular. The fewest number of participants reported attending programming on obesity (13%), despite self-reported height/weight data indicating that 78% were obese or overweight. Second only to a health care provider, the church/G.O.S.P.E.L. was the most frequently endorsed source of health information (31%), whereas respondents used television the least (5%). Respondents used the church/G.O.S.P.E.L. event, with diabetes (40%) being the most popular. The fewest number of participants reported attending programming on obesity (13%), despite self-reported height/weight data indicating that 78% were obese or overweight. Second only to a health care provider, the church/G.O.S.P.E.L. was the most frequently endorsed source of health information (31%), whereas respondents used television the least (5%).

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**C-15**

**PREDICTING AFRICAN AMERICAN ADOLESCENTS’ INTENTIONS TO USE ALCOHOL**

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Although African American adolescents have lower rates of alcohol use compared to Caucasian youth, they encounter more negative consequences associated with their use. While studies in this area have examined the predictors of alcohol use, few have employed theoretically derived constructs and predictors to investigate youths’ intentions to use alcohol. The purpose of this study was to explore the predictors of intentions to use alcohol in a sample of African American adolescents utilizing constructs derived from the Theory of Planned Behavior (TPB). It was hypothesized that adolescents’ behavioral beliefs, normative beliefs, motivation to comply, and control beliefs would predict alcohol use intentions. Data was collected from 1,006 adolescents (age M = 14.7, 49% female) who were randomly assigned to one of two datasets (n = 503 each) in order to perform exploratory and replication analyses. Using sequential multiple regression analysis, intentions to use alcohol were significantly predicted by behavioral beliefs, normative beliefs, behavioral control, amount of alcohol consumed in the past 30 days and age at first experience with alcohol (all p’s < .05). Significant results were consistent across both the exploratory and replication datasets. Results provide empirical support for the utility of constructs derived from the TPB and a framework for the development of future intervention targeting AA adolescents. Findings indicate that future interventions should focus on increasing adolescents’ knowledge and alcohol resistance skills while diminishing adolescents’ positive expectancies of alcohol use.

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C-16

EFFECTIVENESS OF FOCUSING TAILORED MESSAGES TO PARTICIPANT-SELECTED TOPICS

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Creating tailored messages focused on topics selected by participants is currently being implemented in health interventions. However, this is supported mostly by behavioral rationale, for example higher levels of intrinsic motivation may lead to greater future changes. Support from quantitative studies would strengthen this tailoring practice. All participants in the Health Works in the Community Intervention (1999-2004) indicated a behavioral topic on a baseline questionnaire they would most like to work on which became the focus of a tailored message received by those randomized to the tailored study groups. Using ANOVA, we evaluated if mean fruit and vegetable intake and total fat intake at 18 months follow-up differed according to topic chosen among those in the tailored groups. Of 1236 total female participants, most were African American (48.3%) and Caucasian (41.2%), mean age 40.6 years. In the tailored groups, 37 chose eating healthier, 26 chose only exercising, 249 chose both, 41 chose quitting smoking, and 69 chose handling stress. For fruit and vegetables, servings were 2.70 (exercise), 2.68 (eating), and 2.66 (both) compared to 2.45 (stress) and 2.39 (smoking) (p<0.05 for all comparisons). For fat, grams per day were highest for those choosing stress compared to both eating and exercise (58.99 vs. 49.32, p<0.02) and exercise only (58.99 vs. 40.75, p<0.01), other comparisons were not statistically different. Additional analyses will statistically adjust for covariates. These results provide partial support for tailoring to participant-selected topics, however additional evaluation is needed to determine if the effect operates solely through this mechanism.

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C-17

NEIGHBORHOOD PROGRAMS AND SERVICES FOR PHYSICAL ACTIVITY: PREDICTORS OF THEIR USE AMONG PHYSICALLY ACTIVE ADULTS

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Although it is generally thought that the presence of programs and services for physical activity is associated with greater involvement in physical activity, little is known about the correlates of their use. The purpose of this study was to examine the association between selected individual and neighborhood characteristics and neighborhood program and service use (NPSU) for physical activity among physically active adults. A telephone survey was conducted with 3191 randomly selected adults in 22 Canadian neighborhoods. Participants reported on their lifestyle, the availability of, and their NPSU for physical activity. Data reported in this study are for a subset of 1009 individuals meeting minimum recommended guidelines for involvement in vigorous physical activity. Data were analyzed with multilevel modeling. Findings revealed significant random variation across neighborhoods in NPSU among women but not men. Age was negatively associated with NPSU among men (OR: 0.59; 95% CI: 0.38-0.87). Women in the two upper tertiles of involvement in physical activity reported significantly more NPSU. In the final model, higher neighborhood affluence (OR: 1.94; 95% CI: 1.17-3.24) and living in a small urban neighborhood (OR: 2.89; 95% CI: 1.41-5.93) were associated with greater NPSU among women but not men. We conclude that NPSU for physical activity varies according to individual and neighborhood characteristics. Understanding the processes associated with differential NPSU is essential to the implementation of effective environmental and policy approaches to increase physical activity in the population.

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SELF-ESTEEM AND COMPETENCY OUTCOMES AMONG 4th TO 6th GRADE STUDENTS ACROSS 15-MONTHS OF A SCHOOL-BASED PHYSICAL ACTIVITY PROGRAM

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Self-esteem and specific competencies are key indicators of psychosocial health in children. Research has demonstrated that competencies and general self-esteem can improve as a result of increased physical activity. In the present study, we examined the effect of a multiple school-based physical activity program on perceived competencies across five measurement periods totaling 15 months. Participants were 344 nine to eleven year-olds who completed Harter’s perceived competence scale for children. School-time physical activity was measured using physical activity log-books. Schools were randomized to experimental and control conditions (total = 10 schools). Repeated Measures Analyses of Variance suggested a significant time x condition effect for school physical activity in favor of the experimental condition (p < .05). A significant time effect was found for athletic competence (F4,339 = 312.76, p<0.01; eta2 =.48), social competence (F4,339 = 304.12, p<0.01; eta2 =.47), academic competence (F4,339 = 284.24, p<.001; eta2 =.45), and general self-esteem (F4,339 = 326.57, p<.001; eta2 =.49). Specifically, perceived competencies decreased across the 15 months of the trial. The condition x time interaction, however, was not significant (p > .05) for any of the competency outcomes. Results were invariant of age, gender, race, and prior physical activity status. These data suggest that the program was successful in increasing school-time physical activity, but did not affect competencies. Indeed, participants became increasingly critical of their perceived self as they approached early adolescence. Future additions to the program in order to directly affect self-esteem were considered, since it appears that improvements or even maintenance of perceived competencies is warranted in this age-group.

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C-19

SELF-MANAGEMENT STRATEGIES AS MEDIATORS OF PHYSICAL ACTIVITY IN ADOLESCENTS

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Youth are not meeting national physical activity recommendations. Few studies have examined the relationship between the use of self-management strategies and physical activity among adolescents. This study examined associations between adolescent self-efficacy, pros and cons, social support, and overall self-management strategy use and an objective measure of physical activity. Participants were 878 adolescents (54% girls, 58% white, mean age = 12.7) taking part in a RCT for physical activity and nutrition. Physical activity was measured with actigraphs at baseline. Separate self-report scales were created for self-efficacy, pros, cons, social support, and overall strategy use. All scales had fair to acceptable internal consistency (Chronbach’s alpha range .64 -.86). A two step hierarchical linear regression was used to determine the incremental variance explained by (1) demographic variables (sex, age, highest level of parent education, ethnicity) and (2) mediating variables (self-efficacy, pros, cons, social support, overall self-management strategy use). In step 1, sex and age explained 18% of the variance in total daily physical activity (p < .01). In step 2, the cons, self-efficacy and social support scales explained an additional 6% of the variance in activity levels (p < .01). The overall model explained 24% of the variance in physical activity. This study suggests that social support, self-efficacy, and cons may mediate physical activity behavior change and are important to target in physical activity interventions for adolescents.

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C-20

VALIDITY OF A FITNESS AND HEALTH BEHAVIORS SCREEN FOR ADOLESCENTS

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The purpose of this study was to assess the validity, sensitivity and specificity of an
8-item multi-health behavioral short screen (SS) against a standardized health-behavior
assessment instrument (SAI) using self-reports from adolescents. Participants included 302 girls (n=168) and 118 boys (n=134) graders from a local school in Florida. Sixty percent were females with a mean age of 15 years (SD = 1.10). Nearly half (49%) were White, 28% were other ethnicities and 23% were Black. In fall of 2002, a confidential SAI and SS administered within a month of each other were used to collect data on student sport/activities in and out of school, physical activity, healthy breakfast, sleep habits, and 30-day alcohol use. Chi-square analyses and contingency coefficients were used to determine the validity of participants’ responses. Results revealed significant associations (p’s < .000) between responses on all of the health behaviors measured in SS and SAI. Similarity, all contingency coefficients comparing measures from both instruments were significant with values ranging from .30 -.64 (p’s < .000). The sensitivity and specificity of SS was also verified. All but one measure was highly sensitive (70% - 95%) and highly specific (69% - 95%). These results indicated that the SS provides a valid, sensitive and specific measure of fitness and health behaviors for adolescents. When it is not necessary or feasible to use standardized assessment instrument, the SS can be used to quickly assess adolescent health behaviors in clinical and non-clinical setting for brief preventive interventions.

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C-21

Meritorious Student Poster

TREATMENT OF OBESITY IN UNDERSERVED RURAL SETTINGS (TOURS): EFFECTS ON QUALITY OF LIFE

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In the U.S., the prevalence of obesity varies by degree of urbanization. The highest rates are observed in rural areas, which have less access to health care and higher rates of chronic diseases. Rural populations have been slower to adopt lifestyle changes related to disease risk factors, including reductions in dietary fat intake and decreases in sedentary lifestyle. TOURS is a three-arm randomized controlled trial testing the effectiveness of interventions designed to promote long-term weight management in women from medically underserved rural areas. The effects of a 6-month lifestyle intervention on changes in body weight and health-related quality of life were examined in the first cohort of 94 obese women (Mean BMI = 37.0 ± 5.0, Mean age = 58.8 ± 6.3 yr). Significant pre-post intervention changes were observed in body weight (Mean = 9.2 ± 5.9 kg) and in three of the eight subscales of the SF-36 Health Survey. Participation in the weight-loss intervention was associated with significant improvements in physical functioning, vitality, and general health (all ps < .001), but only the change in physical functioning was associated specifically with changes in weight (r = .25, p = .02) and physical activity (r = .28, p = .018). These findings demonstrate that obese women from medically underserved rural areas can accomplish significant improvements in health-related quality of life via a lifestyle intervention for weight management.

Supported by NHLBI R18HL073326

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C-22

ADDRESSING CHILD NUTRITION AND PHYSICAL ACTIVITY IN A COMMUNITY PEDIATRIC SETTING

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Overweight in children has increased dramatically during the last two decades and imposes a burden on physical health and emotional well-being. There have been few treatment options available for affected children, even though an efficacious treatment exists. Pediatric providers are ideally situated to address this problem, especially since children are seen frequently for preventive care during the early years. We are conducting a pilot study to evaluate the feasibility and acceptability of a family-based, efficacious treatment offered in primary care by psychologists to children whose BMI is ≥ the 85th percentile. The intervention consists of a behavioral weight management program that includes lifestyle education, moderate caloric restriction and increased physical activity. Families attend 8 weekly group sessions and 3 monthly follow-up sessions delivered over 6 months. We have completed 5 intervention groups in two community-based pediatric practices and are reporting on 54 children. Mean weight at entry was 128.25 lbs. (± 10.4); mean BMI percentile was 98.2 (± 0.8). Mean weight loss for children who attended 6 of 8 group sessions (n=20) was 4.1 lbs. (± 4.3). Mean weight loss using intent to treat (N=54) was 1.63 lbs. (± 5.2). Although participants and providers reported high satisfaction, retention rate was only 37%; participant life events and intervention burden were cited most frequently as reasons for withdrawal. Efforts to translate an efficacious weight management intervention into practice must address the burden on participants and interventionists. Simplifying the intervention and delivering it, in part, telephonically or by mail, may accomplish this.

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C-23

ACCEPTABILITY RESULTS OF A MULTI-MEDIA OBESITY PREVENTION INTERVENTION FOR ADOLESCENTS

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A pilot study was conducted to evaluate the acceptability of a computer-based, multiple-behavior obesity prevention intervention for adolescents. The intervention, Good Moves with Food and Fitness, was developed using the Trans-theoretical Model (TTM). Individualized feedback is offered based on readiness to engage in physical activity, consume fruits and vegetables, and limit television viewing according to national recommendations. High school students (N=45) participated in a pilot test (mean age=16.9; 73% male; 80% White). After finishing the 30-minute computer program, students completed a 16-item evaluation gauging their acceptability of the program on a 5-point Likert scale. They answered open-ended questions allowing them to elaborate on their opinions of the program and ideas for improvement.

Participants rated the program very positively with item means ranging from 3.60 to 4.75 on a five-point scale. The accessibility of the program was its strongest feature with an majority strongly agreeing or agreeing that the program was easy to use (97.8%), and that the questions (88.9%) and feedback (86.7%) were easy to understand. The participants endorsed the content, with 65.9% believing the program could help them be healthier. Overall, the participants reported they would recommend the program to a friend (73.3%). Qualitative responses of
terful usef ul information to enhance and complete the intervention.

This pilot study demonstrated that a computer-administered, TTM-based multiple behavior obesity prevention intervention is acceptable to high school students. If proven effective, this intervention can be disseminated as an efficient, population-based approach to impacting adolescent obesity. Developed in part-
nership with Channing Bete Company, Inc.

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C-24
FRUIT, VEGETABLE, AND FAT INTAKE AMONG ADOLESCENTS
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Home environment impacts children's diets; there are limited data with adolescents. Our objective was to assess whether home food availability and eating meals as a family and at fast food restaurants were related to fruit, vegetable, and fat intake among adolescents.
A cross-sectional survey of adolescents (n = 260) and their parents (n = 260) was conducted at an adolescent clinic. Adolescents (166 female, M age = 15.0, 55% White) completed validated measures of fruit, vegetable, and fat consumption and questions on eating meals as a family and at fast food restaurants. Parents (240 female, M age = 39.8) completed a validated measure of home food availability.
Correlations between parent-reported availability and adolescents’ consumption was moderate for fruits (r = .21, p < .001) and small for vegetables (r = .12, p = .056). Eating meals with family was positively related to fruit (r = .18, p = .002) and vegetable intake (r = .13, p = .030). Energy from fat was related with eating fast food (r = .26, p < .001) and with availability of regular fat products in the home (r = .14, p < .032).
Availability is more likely to increase consumption of fruits than vegetables. Eating fast food appears to be a stronger determinant of fat consumption than having regular fat foods available at home. Adolescents’ diets may benefit from eating meals as a family, decreasing fast food consumption, and having healthy food available and accessible.
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C-25
RURAL MEXICAN AMERICAN WOMEN: BARRIERS TO HEALTHY EATING
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Obesity is a significant problem for Mexican American women, yet little research examining what influences their eating behaviors has been conducted. The purpose of this qualitative study was to explore barriers to healthy eating in overweight, Mexican American women from rural New Mexico.
For the sample, 60% had an acculturation level of Mexican oriented to bi-cultural, 73% had an annual income at or below $20,000, and 60% had graduated from high school. The average age of participants was 46 years (SD = 5.5), while the average body mass index was 36.5 (SD = 5.8).
Using an explanatory model framework, a convenience sample of 15 women were asked what gets in the way of healthy eating. Transcribed interviews were analyzed for themes and content was categorized and compared until consensus was reached by investigators.
Participants identified multiple barriers to healthy eating. These barriers included: 1) eating in response to stress; 2) a lack of control over eating; 3) the amount of effort and time required to eat healthy; 4) control by others either now or in the past that influenced eating behaviors; and 5) social influences such as lack of social support, taking care of family rather than self, and social pressure. These barriers need further examination in order to develop culturally appropriate interventions.
This study was funded by NIH, NINR P20(NR08352-01), Southwest Partnership Center.
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C-26
PRETEENS WITH A TV IN THEIR BEDROOM ARE MORE LIKELY TO BE OVERWEIGHT
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Objective: We examined the relationship between physical activity, TV viewing, and child overweight status. Methods: We surveyed 2634 Northern New England children, 8-13 years, and their parents about media habits and children's health-related behaviors. Children's Body Mass Index (BMI) was calculated using parental report of child's height and weight. Overweight was defined as above the 95th percentile for age- and gender-specific BMI. Results: Overall, 12.5% of the children were overweight. The majority reported generally watching TV after school (84.1%) and after supper (81.7%). Half (49.0%) had a TV in their bedroom. Only 30.6% engaged in daily physical activity. Children's age, gender, time spent viewing TV, physical activity and household income were all significant predictors of being overweight. Children with a TV in their bedroom were significantly more likely to be overweight (62.5% of those with a TV were overweight compared to 37.5% of those without a TV, p < .001). Even after controlling for child demographic characteristics, physical activity, media usage, household income and television access, children who had a TV in their bedroom were still 1.4 (95% CI: 1.05, 1.91) times more likely to be overweight compared to those who did not.
Conclusions: Having a TV in the bedroom increases a child’s risk of being overweight, independently of reported physical activity and other known predictors. Further study is needed to determine to what extent having a TV in the bedroom contributes to a sedentary lifestyle and whether it is also associated with increased caloric intake.
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BEHAVIORAL ECONOMICS OF FOOD AND ACTIVITY CHOICES IN THE OVERWEIGHT AND LEAN
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INTRODUCTION: Healthy eating and exercising helps prevent obesity, but how food and activity choices influence each other remains unknown. We studied whether increasing the cost of one commodity only reduces choice of that commodity (same-price elasticity), or also alters choice of other commodities (cross-price elasticity), and whether results depend upon overweight status (BMI ≥25). METHOD: College students (n = 72; 63% female; 31% overweight) performing a choice task (Petry, 2001) received $4 on each of 16 trials to spend on healthy food (fruit/vegetable) or pastime (physical activity) or less healthy alternative (snack food; sedentary pastime). The price of each commodity varied (cross-price elasticity), and whether results depend upon overweight status (BMI ≥25). RESULTS: College students (n = 72; 63% female; 31% overweight) performed a choice task (Petry, 2001) received $4 on each of 16 trials to spend on healthy food (fruit/vegetable) or pastime (physical activity) or less healthy alternative (snack food; sedentary pastime). The price of each commodity varied ($0.25, $0.50, $1.00, $2.00, and $4.00): price of the others remained constant at $1.00. RESULTS: Repeated measures ANCOVA with overweight as between subjects factor, gender as covariate, price as repeated measures factor, and purchases as DV showed that purchasing of all commodities showed same-price elasticity, decreasing as cost increased. Cross-price elasticity was absent for the sample as a whole. However, for overweight participants, increasing the cost of sedentary behavior not only decreased purchases of sedentary pastimes but also decreased snack food purchases (F(4, 47) = 4.9, p < 0.003), indicating that snacking complemented engaging in a sedentary pastime. In contrast, for normal weight participants, choice of snack foods was independent of choice for sedentary pastimes. CONCLUSION: For overweight but not lean adults, sedentary pastimes and unhealthy foods appear to be complements. For the overweight, taxing sedentary leisure pursuits might have the added benefit of reducing unhealthy snacking.
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FAST FOOD RESTAURANT DENSITY IN BROOKLYN, NYC

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Research shows that the opportunity to consume healthful foods may be limited for many African Americans, because their neighborhoods tend to contain few supermarkets. The present study sought to investigate another aspect of the food environment in Black neighborhoods: the dispersion of fast food restaurants. It was hypothesized that compared with White neighborhoods, Black neighborhoods would contain a higher density of fast food restaurants. Eleven neighborhoods in Brooklyn, New York City (NYC) were chosen for the analysis based on their similarity in: close proximity to downtown Brooklyn; moderate to high population density; multiple-dwelling housing stock; and mixed residential/commercial thoroughfares. Fast food restaurants were defined as establishments selling foods such as hamburgers or fried chicken, including national chains (e.g., McDonald’s) and local outlets. Data on restaurant location were obtained from the NYC Department of Health and Mental Hygiene, and neighborhood demographics from the 2000 Census. Restaurants’ locations were then geocoded to census tracts using Geographic Information Systems software. Results revealed that fast food restaurants were dense in Black neighborhoods and virtually nonexistent in White neighborhoods, and fast food establishments in Black neighborhoods comprised a higher proportion of total area restaurants than in White neighborhoods. Finally, density of fast food restaurants in Black neighborhoods was not explained by median household income. These data underscore the importance of neighborhood context and community-level change in dietary interventions and overweight/obesity disparities research. More broadly, the results also speak to the effects of residential segregation on health risk for African Americans.

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WILL CONSUMERS READ NUTRITION LABELS ON RESTAURANT MENUS AND CAN THEY INTERPRET THE INFORMATION?

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Recently, some obesity investigators and public health professionals have advocated for legislation that would mandate nutrition labeling for calories on menus at fast food and other chain restaurants. However, the utility of this new nutrition labeling in restaurants for decreasing rates of obesity in our country rests upon a critical assumption—that people read and comprehend the information on nutrition labeling in restaurants for decreasing rates of obesity in our country. The present study sought to investigate whether consumers would read and understand nutrition labeling in fast food and other chain restaurants. Eleven neighborhoods in Brooklyn, New York City (NYC) were chosen for the analysis based on their similarity in: close proximity to downtown Brooklyn; moderate to high population density; multiple-dwelling housing stock; and mixed residential/commercial thoroughfares. Fast food restaurants were defined as establishments selling foods such as hamburgers or fried chicken, including national chains (e.g., McDonald’s) and local outlets. Data on restaurant location were obtained from the NYC Department of Health and Mental Hygiene, and neighborhood demographics from the 2000 Census. Restaurants’ locations were then geocoded to census tracts using Geographic Information Systems software. Results revealed that fast food restaurants were dense in Black neighborhoods and virtually nonexistent in White neighborhoods, and fast food establishments in Black neighborhoods comprised a higher proportion of total area restaurants than in White neighborhoods. Finally, density of fast food restaurants in Black neighborhoods was not explained by median household income. These data underscore the importance of neighborhood context and community-level change in dietary interventions and overweight/obesity disparities research. More broadly, the results also speak to the effects of residential segregation on health risk for African Americans.

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HOW TO FIND NEEDLES IN THE HAYSTACK WHEN YOU DON’T KNOW HOW MANY NEEDLES OR HAYSTACKS EXIST: A METHODOLOGY FOR IDENTIFYING AND SAMPLING COMMUNITY-BASED CESSATION PROGRAMS

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Although interest in teen smoking cessation is growing, there is currently no way to enumerate or characterize available programs. The Helping Young Smokers Quit (HYSQ) initiative aimed to fill knowledge gaps about existing youth cessation programs—the variety of treatment approaches and program components that are offered across the US. One challenge in this research was the lack of any comprehensive list or registry of non-research based programs from which a sample could be drawn. This paper describes a unique, multi-stage procedure to identify smoking cessation programs for youth aged 12-24. To develop this sample, a frame of 2,453 US counties was stratified by four criteria (i.e., urbanization, socio-economic status, youth smoking prevalence, and state-level tobacco-control expenditures), and 408 counties were selected with probability proportion to size of the youth population. Through a snowball sampling process starting in four county sectors, program informants within each sampled county were identified then screened for eligibility in the HYSQ initiative. Over 10,000 informants were contacted, and 761 eligible programs were ultimately identified (with over 500 programs deemed ineligible). Of the eligible programs, 592 (78%) successfully completed an in-depth program interview. The strengths and limitations of this innovative methodology will be reviewed, with recommendations for identifying and sampling community-based behavioral intervention programs when little information exists about current services.

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A SELF-DETERMINATION MULTIPLE RISK INTERVENTION TRIAL TO IMPROVE SMOKERS’ HEALTH

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Purpose: To test a Self-determination theory (SDT) based intervention to increase tobacco abstinence and improve diet for hypercholesterolemia.

Methods: Smokers (N=1006) were randomized to receive SDT based intensive individual tobacco treatment versus community care. Smokers with hypercholesterolemia (371 of the 1006) at baseline were also randomized to receive intensive nutrition counseling versus community care. Patients were relatively poor, undereducated, and fewer than half were initially ready to stop smoking. Patient autonomy and competence motivation for tobacco abstinence and dietary change were assessed at baseline and 6 months. Patient perception of autonomy support from clinicians was assessed at 1 month. Outcomes included 12-month prolonged abstinence, and change in % calories from fat and LDL-cholesterol from baseline to 18-months.

Results: Intention to treat analyses revealed that the intervention significantly increased 12-month prolonged abstinence (6.2% vs 2.4%; OR = 2.7, p=0.01), and reduced LDL-C (-8.9 vs. -4.1 mg/dl; p=0.05). There was no significant effect on change in % calories from fat (p=0.74). The intervention condition was perceived by patients as more autonomy supportive than community care (6.3 vs 5.7, p=0.01), and significantly increased autonomous and competence for tobacco abstinence. The diet intervention did not increase autonomy, but change in autonomy did predict change in % calories from fat.

Conclusions: A self-determination theory based intervention focused on supporting smoker’s autonomy was effective in increasing prolonged abstinence from tobacco, and lowered LDL-cholesterol. Clinical interventions for multiple risk behavior change may be improved by focusing on methods to increase patient autonomous and competence motivations.

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FACTORS THAT PREDICT THE EFFECTIVENESS OF CONTINGENCY MANAGEMENT ON SMOKING CESSATION DURING PREGNANCY: THE MISS PROJECT

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The Maternal Interventions to Stop Smoking (MISS) Project was a randomized, controlled trial designed to significantly increase smoking cessation during pregnancy through the use of a contingent reward for biochemically verified abstinence. Study participants (N=592) were predominantly low-income women who accessed private practice prenatal clinics in Oregon. The primary aims for this contingency management intervention were: 1) to determine whether financial incentives were more effective than Best Practice 5 A's in motivating pregnant smokers to quit; 2) to assess whether a higher incentive ($75./mo.) would result in a greater level of smoking cessation than a lower level incentive ($25./mo.), utilizing an intent-to-treat model. A secondary aim was to determine whether selected psychosocial and environmental factors would predict smoking cessation at end of pregnancy. Monthly, all participants completed a brief written instrument and those who self-reported as nonsmokers provided a salivary specimen and a CO expired air assessment. A "quitter" was someone whose values for biochemical tests were ≤ 30 ng/ml salivary cotinine (GCMS) and ≤ 5 ppm CO expired air. A significant treatment effect (confirmed cessation) was found at end of pregnancy and factors associated with the treatment effect were modeled. Analyses included nonparametric randomization-based methods (chi-square and Mantel-Haenszel statistic), and multivariable logistic regression. The independent variables included e.g., depression, stress, social pressure to quit, support to quit, intention to quit, smoking history, self-efficacy, number of cigarettes smoked daily, how smoking is handled at home and work, sociodemographics.

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URGE TO SMOKE: THE IMPACT OF EXPOSURE TO SMOKING IN MOVIES

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Research about the effect of smoking in movies has focused primarily on progression toward smoking among adolescents who never smoked. Less is known about the impact of exposure to celebrity smoking on young smokers. Using 24 scenes, sampled from popular movies, this experiment tested the impact of cue exposure (smoking present vs. absent) and cue valence (positive vs. negative) on young adults' urge to smoke. Our sample included 316 young adults (84 male, 232 female; 91.8% Caucasian; 4.1% African-American; mean age 18.87); 24.4% were regular smokers, 25.6% occasional smokers, and 50.0% susceptible nonsmokers. Random assignment determined whether participants saw 6 scenes that portrayed the same movie characters (3 male, 3 female) either smoking in positive contexts, not smoking in positive contexts, smoking in negative contexts, or not smoking in negative contexts. After viewing, participants completed a 7-point likert-scale item of urge to smoke. Although there was no significant main effect of cue exposure or valence on urge to smoke, a three-way interaction (exposure x valence x smoking status) emerged, F(2,316)=2.85, p=0.059. Regular smokers reported greater urge to smoke after viewing celebrities smoking in positive contexts (having fun and socializing) (M=5.23, SD=1.43) than in negative contexts (feeling upset or stressed) (M=5.23, SD=1.43), F(1,131)=2.95, p=0.09. These findings complement current studies showing that the affective content of smoking imagery may moderate the effect of cue exposure on urges to smoke. Additionally, the study results provide further support for policies to reduce young peoples’ exposure to smoking in movies.

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R-RATED MOVIES, PARENTAL CO-VIEWING AND ADOLESCENT SUSCEPTIBILITY TO SMOKING

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Objective: Viewing R-rated movies significantly increases the risk of adolescent smoking initiation, even after controlling for social and parental influences. This study examines whether parental co-viewing of R-rated movies reduces this association.

Methods: We surveyed 2560 adolescents, 9-12 years, by telephone and assessed their susceptibility to smoking and parental rules about movie viewing. We asked children how often their parents let them watch R-rated movies and how often they watch R-rated movies with their parents.

Results: Overall, 10% of the children were susceptible to smoking. Slightly more than half (55%) reported that their parents allowed them to watch R-rated movies. Of these, 21% were allowed to watch R-movies most of the time and 79% could watch them sometimes. Parental permission to watch R-movies was significantly associated with increased susceptibility to smoking (14% of those who were allowed to watch R-movies were susceptible compared to 5% of those who were never permitted to watch them [p<0.0001]). Parental co-viewing decreased the association between R-movie restrictions and susceptibility to smoking. Among children who watch R-rated movies, 21% of those who never watch them with their parents were susceptible compared to 11% of those who watch R-movies with their parents most or all of the time (p=0.001).

Conclusion: Parental restriction of R-rated movies may be an effective strategy for decreasing the likelihood that a child will initiate smoking. However, if parents choose to let their children watch R-rated movies, co-viewing may mitigate some of the influence these movies have on the risk of adolescent smoking.

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DOES TARGETING MULTIPLE RISK BEHAVIORS FOR INTERVENTION REDUCE SMOKING CESSATION RATES?

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Large gaps exist in knowledge about the efficacy of interventions to address multiple risk behaviors. This secondary analysis examined the effect of treating the single behavior of smoking alone versus treating smoking plus additional health behaviors. Data were drawn from smokers (N=2326) participating in three population-based, multibehavioral studies targeting cigarette smoking, high fat diets, and sun exposure. The studies were randomized controlled trials designed to significantly increase smoking cessation during pregnancy through the use of a contingent reward for biochemically verified abstinence. Study participants were predominantly low-income women who accessed private practice prenatal clinics in Oregon. The primary aims for this contingency management intervention were: 1) to determine whether financial incentives were more effective than Best Practice 5 A’s in motivating pregnant smokers to quit; 2) to assess whether a higher incentive ($75./mo.) would result in a greater level of smoking cessation than a lower level incentive ($25./mo.), utilizing an intent-to-treat model. A secondary aim was to determine whether selected psychosocial and environmental factors would predict smoking cessation at end of pregnancy. Monthly, all participants completed a brief written instrument and those who self-reported as nonsmokers provided a salivary specimen and a CO expired air assessment. A “quitter” was someone whose values for biochemical tests were ≤ 30 ng/ml salivary cotinine (GCMS) and ≤ 5 ppm CO expired air. A significant treatment effect (confirmed cessation) was found at end of pregnancy and factors associated with the treatment effect were modeled. Analyses included nonparametric randomization-based methods (chi-square and Mantel-Haenszel statistic), and multivariable logistic regression. The independent variables included e.g., depression, stress, social pressure to quit, support to quit, intention to quit, smoking history, self-efficacy, number of cigarettes smoked daily, how smoking is handled at home and work, sociodemographics.

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ORGANIZATIONAL SYSTEMS TO SUPPORT PUBLICLY-FUNDED TOBACCO SERVICES

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Clinician knowledge of the devastating toll that tobacco use incurs on the health of their clients and awareness of guidelines and best practices to routinely screen for tobacco use and counsel those who are smoking to quit have made a significant impact on decreasing usage. While research in health maintenance organizations has demonstrated that the development and maintenance of office systems to support tobacco control preventive services are needed to institutionalize the guidelines for daily use, not much is known about implementation of services in organizations serving disadvantaged populations.

Data were collected via in-person interviews using a standardized systems assessment (SA) checklist at 83 funded community health service (CHS) agencies that included hospitals, community health centers and other organizations (e.g., substance abuse, mental health and multi-service). Many CHSSs had multiple service sites. One site was selected for the SA based on volume of smoking referrals. The SA content reflected support strategies with proven effectiveness that have been included in guidelines and best practices recommendations. This study in diverse health care organizations found considerable attention to systems which support cessation services, but much remains to be done. There is a wide diversity of implementation strategies employed, with varied degrees of sophistication. A major challenge is to develop systems capable of providing population-based feedback to, and between, providers.

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HOME VISITORS EFFECTIVELY EXTEND SMOKING CESSATION COUNSELING TO LOW-INCOME PREGNANT SMOKERS

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High smoking rate (56%) among low-income, white Medicaid pregnant population demands finding methods to enhance current best practice to increase quit rates. Smokefree Connections project studied the impact of innovative, home-based smoking cessation counseling on the quit rates of low-income pregnant smokers. Current employees of home visiting agencies contracted by the state to provide routine, prenatal home care were trained to provide counseling. Two fifteen minute sessions were delivered at separate visits during the first trimester in addition to an office-based best practice intervention. Topics covered in home visits extended beyond the usual content of office-based counseling focusing on partner support and communication, and stress management.

Natural history study (N=116) documented pre-intervention quit and reduction rates of population. Of 82 women enrolled in feasibility study, 52% received at least one home visit. Intent to treat analysis found non-significant 50% increase in cotinine-validated quit rates. However, treatment analysis found quit rates increased from 8% to 19% (p=.08) and women who reduced number cigarettes smoked more than doubled to 45% (p=.006). Multiple regressions identified different factors significantly related to quitting and reduction. Confidence that could quit and number of smokers in household were significantly related to both reduction and quitting. Partner support specific to quitting significantly increased quitting among these pregnant women. Cost benefit ratio was $2.5:1 for the office-based counseling only and $2.8:1 for the combined intervention. Routinely providing smoking cessation counseling through existing home visiting programs would increase the quit rate among pregnant smokers and reduce exposure to second hand smoke in those families.

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HIGH SCHOOL TOBACCO USE: EXPERIMENTATION VS. REGULAR USE VS. NON-USE AND IMPLICATIONS FOR INTERVENTION DEVELOPMENT

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Approximately 80% of adult smokers started smoking before they turned 18. Tobacco use causes significant health problems in adolescents and adolescent tobacco users are more likely to use alcohol and illegal drugs than nonusers. As a first step in creating a Transtheoretical Model-based computer administered multimedia intervention tailored to high school students’ individual readiness to not start using tobacco or to quit using tobacco, an assessment was completed by 514 students. Analyses revealed three distinct groups of adolescents (grades 9-12): nonusers, experimenters, and users. Experimenters were defined as those students who reported smoking less than 100 cigarettes in their lifetime and who also reported not using any other form of tobacco (cigars or chewing tobacco). Forty-four percent had never used any form of tobacco, 42% had used tobacco in their life, and 14% were classified as experimenters.

Examination of TTM variables, such as the processes of change, decisional balance and self-efficacy, indicated that experimenters were significantly different from users, which indicates that interventions should be tailored to the three different segments of the population. Differences among these groups on use of processes of change, pros and cons, and self-efficacy and the implications for intervention development will be presented.

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RECRUITMENT AND RETENTION OF YOUTH SMOKERS FOR COMMUNITY-BASED TOBACCO CESSATION PROGRAMS

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With increased rates of youth smoking during the 1990’s, youth cessation has become a high priority. The limited research on effective cessation programming for youth highlights the challenges in recruiting and retaining sufficient numbers of youth, both for treatment and research participation. This paper will present data from a national sample of community-based youth cessation programs (N=592) identified in 408 counties in the United States to examine factors associated with: (a) the numbers of youth recruited to programs; and (b) the proportion of youth recruited to complete treatment. All of the programs are frontline, nonresearch affiliated, direct-service providers. Program directors identified through a community-based snowball sampling methodology provided data. In the 12 months prior to the program survey, the number of youth served ranged from 1 to 2000 (Mean=65); the reported proportion of youth completing the treatment programs ranged from 0% to 100% (Mean=75%). Analyses are guided by a multi-level logic model that includes: program context factors [e.g., characteristics of the home county (rural vs. urban, SES, smoking prevalence) and sponsoring organization, and the local policy environment], program setting, recruitment strategies, requirements of participation [e.g., voluntary vs. mandatory, parental notification], and program content [e.g., format, amount of contact, pre-packaged, topics/strategies]. Findings are relevant for researchers and practitioners interested in using ‘best practices’ to optimize the reach of youth cessation programs.

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PREDICTORS OF SMOKING CESSATION IN PREGNANCY AND MAINTENANCE POSTPARTUM IN LOW-INCOME WOMEN  

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Background: Many women, especially those of low income, continue to smoke during pregnancy and postpartum.  

Objective: To describe factors associated with smoking status of low-income women during pregnancy and postpartum.  

Methods: Data from a randomized clinical trial were used to conduct separate analyses on 327 women who smoked at baseline and for whom smoking status was available at delivery, and on 109 women who reported not smoking at delivery (quit spontaneously or after study enrollment) and for whom smoking status was available at 6-months postpartum. Salivary cotinine was used to assess the accuracy of self-reported smoking status for the sample as a whole.  

Results: 18% of the 327 baseline smokers stopped smoking before delivery, Cessation was less likely in older women, those reporting Medicaid coverage (versus commercial or no insurance), who were at a later week of pregnancy at baseline, were more addicted, had a husband/partner who smoked, and did not receive the study intervention. 37% of the 109 women who reported not smoking at delivery maintained abstinence at 6-months postpartum. Factors associated with abstinence were later week of pregnancy at baseline and quitting spontaneously with pregnancy, while women who lived with a smoker were less likely to report abstinence. Spontaneous quitters were less likely to relapse by six months postpartum than women who quit smoking later in pregnancy.  

Conclusions: Partner participation in smoking cessation programs for pregnant and postpartum women merits exploration. Lower relapse rates among spontaneous quitters indicates a need to foster an environment that encourages quitting at pregnancy.  

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HOUSEHOLD RULES AROUND REDUCING ENVIRONMENTAL TOBACCO SMOKE (ETS) EXPOSURE: A QUALITATIVE STUDY OF COUPLES WITH YOUNG CHILDREN  

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Objectives: To explore the feasibility of policy options for reducing infant/child exposure to ETS in homes  

Methods: Semi-structured interviews were conducted with 25 stakeholders from public health, medicine, health advocacy organizations, professional association, child welfare and government agencies.  

Results: There was strong consensus about opposition to ETS legislation in the home. Efficacy, enforcement, and civil liberties were identified as key barriers. Discourses of denormalization, prevention, protection and cessation were consistent across key informants. There was a diversity of viewpoints that positioned ETS as a complex moral, social and child health issue. There was also concern that legislation has punitive consequences insofar as it disproportionately affects families that are already marginalized.  

Conclusion: The possibility of implementing ETS policies in the home is a contested issue. In lieu of regulatory strategies in the home, a progressive approach focusing on first eradicating ETS from public places was recommended. A ‘soft’ sell approach involving culturally sensitive messages which convey health risk associated with children’s exposure to ETS is needed. Public health awareness campaigns targeting schools, social networks and disadvantaged populations are needed. Finally, it is imperative that multi-sectoral partnerships are created to ensure that the development and adoption of policies are reflective of the needs of the populations served.  

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REDUCING CHILDREN’S EXPOSURE TO ENVIRONMENTAL TOBACCO SMOKE (ETS) IN PRIVATE PLACES: A QUALITATIVE STUDY OF TOBACCO CONTROL ADVOCATES AND POLICY STAKEHOLDERS  

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Objectives: To explore the feasibility of policy options for reducing infant/child exposure to ETS in homes  

Methods: Semi-structured interviews were conducted with 25 stakeholders from public health, medicine, health advocacy organizations, professional association, child welfare and government agencies.  

Results: There was strong consensus about opposition to ETS legislation in the home. Efficacy, enforcement, and civil liberties were identified as key barriers. Discourses of denormalization, prevention, protection and cessation were consistent across key informants. There was a diversity of viewpoints that positioned ETS as a complex moral, social and child health issue. There was also concern that legislation has punitive consequences insofar as it disproportionately affects families that are already marginalized.  

Conclusion: The possibility of implementing ETS policies in the home is a contested issue. In lieu of regulatory strategies in the home, a progressive approach focusing on first eradicating ETS from public places was recommended. A ‘soft’ sell approach involving culturally sensitive messages which convey health risk associated with children’s exposure to ETS is needed. Public health awareness campaigns targeting schools, social networks and disadvantaged populations are needed. Finally, it is imperative that multi-sectoral partnerships are created to ensure that the development and adoption of policies are reflective of the needs of the populations served.  

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ADDRESSING HIV/STI RISK AND PRECAUTIONARY CHANGES IN DIFFERENT SETTINGS  

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The aim of this study is to identify the most effective setting for addressing HIV/STI prevention in heterosexual male populations. Specifically, this research program will describe whether or not there is a differential impact on knowledge, attitudes and sexual practices between male participants in a neighborhood or in a workplace setting.  

A 3-year long, community-based study was targeted amongst an international male heterosexual population (n=2001). Utilizing a participatory action research approach, the intervention consisted of four steps: 1) obtaining permission 2) presenting seminars for all in the intervention group, 3) recruiting and training of peer educators, and 4) the work of peer educators.  

Pretest and posttest surveys covered demographics, knowledge, attitudes, beliefs, behaviors, self-efficacy for condom use, alcohol and drug use and social desirability. The content areas included: risk behavior and perception of own risk for HIV infections; provision of AIDS prevention classes or education materials; existence of mandatory condom use policy; and availability of condoms.  

Total scores were generated for all scales and subscales, after which mean differences for social conditions, such as education level and income status were examined by analysis of variance. (Preliminary results reveal the mean age, level of schooling, and income for the neighborhood sample (n=1201) was comparable to the workplace sample (n=800.) The primary hypotheses of the study, which predicted that individuals in the worksite condition would be exposed to the intervention at greater rates than persons in the community condition, was validated statistically. Hierarchical regression analyses was conducted to examine the extent to which the independent variables account for differences in exposure rates.  

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RESILIENCE AND SEXUAL RISK BEHAVIOR AMONG URBAN ADOLESCENTS: THE COMPENSATORY AND PROTECTIVE EFFECTS OF MOTHER AND FATHER SUPPORT

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Previous research suggests that social support provided by parents can influence the sexual risk behavior of adolescents. Researchers have also found that psychological distress and substance use may influence sexual risk behavior. Few studies, however, have investigated mother and father support separately using a resilience framework, or have tested these relationships longitudinally among urban adolescents. From a sample of 554 urban, predominantly African-American adolescents, we developed and tested two sets of longitudinal models of resilience that included 10th grade support, 11th grade psychological distress, and 11th grade substance use, predicting 12th grade sexual risk behavior, using structural equation modeling. The first set of models tested the compensatory model of resilience, and suggested that mother support directly compensates (β = -20) for the risk factors psychological distress (β = 24) and substance use (β = 63). Mother support also indirectly compensated for the risk factors through mediation (β = -18). Father support was not found to be a compensatory factor. The second set of models tested protective (interactive) models of resilience. These results suggested that the relationship between psychological distress and sexual risk behavior was not present for those adolescents with high mother support, but was present for those with low mother support (β = .49). We also found evidence that the indirect effect of mother support on sexual risk behavior through the mediating factor substance use was greater among those with high father support (β = .14) as compared to those with low father support (β = -.08).

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RISK AND PREVALENCE OF SEXUALLY TRANSMITTED INFECTIONS IN HOMELESS SHELTERS IN ALABAMA

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The southern U.S. continues to have higher STI rates than other regions. One contributor to this persistent problem is pockets of infection in persons who may not have regular access to health care such as those who are homeless or living in shelters. The goal was to evaluate the prevalence of syphilis, gonorrhea, chlamydia, and HIV among individuals receiving services at three Alabama missions. A cross-sectional survey was developed in collaboration with local community partners. Data on STI knowledge and sex-related risk behaviors were collected from 416 males and females (ages of 19-45). Participants provided specimens for syphilis serologic testing, chlamydia and gonorrhea urine testing and saliva for HIV testing. The results indicated that 62.9% of the sample was male, 77.9% African American, and 64.3% had no regular source of health care. Few (1.9%) knew that syphilis was congenital or could increase the risk of HIV (1.2%) or other STIs (4.3%). An STI history was reported by 34%. Nearly one-fifth (19.3%) of the sample reported ever having sex to get drugs, money, or other things and the majority (78.4%) believed that they were at low, very low, risk of contracting STIs. STI prevalence was 14.3% and was as follows: untreated syphilis 1.0%; gonorrhea 4.5%; chlamydia 10.8%; and HIV 0.6%. Individuals receiving services at homeless shelters represent a high prevalence population and routine screening and STI prevention efforts within these settings are urgently needed.

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PREDICTORS OF GLOBAL MOOD DISTURBANCE IN A SAMPLE OF DRUG COURT PARTICIPANTS

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Interview data, collected between March, 2000 and November, 2002 from Kentucky drug court participants in Lexington and Bowling Green (N = 500), were subjected to cross-sectional analysis examining the associations between self-reported, current global mood disturbance symptoms and various personal characteristics and experiences from the period before drug court involvement. Mood disturbance symptoms were measured with Derogatis’ Brief Symptom Inventory (BSI), and potential correlates were derived from McLellan’s Addiction Severity Index, 1992 version. The BSI Global Severity Index score indicated minimal-to-moderate symptoms, with a mean individual score of 0.74, on a scale from none (0) to extreme (4) symptom strength. Numerous predictor variables were significantly associated, but stepwise multiple regression analysis identified six variables (R²=0.28) as independent correlates of global mood disturbance: 1) poorer self-rated health, 2) having ever been treated in a hospital for psychological problems, 3) having had conflicts with non-family others in the six months before drug court, 4) being troubled by family problems in the six months before drug court, 5) number of years of education (inversely related), and 6) having ever been treated as an outpatient for psychological problems. If confirmed by future, prospective research, the six variables found by the multiple regression analysis may be useful in identifying and more adequately treating substance abusers with symptoms of global mood disturbance.

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METHAMPHETAMINE USE, SENSATION SEEKING, AND HIGH-RISK SEXUAL BEHAVIOR AMONG MEN WHO HAVE SEX WITH MEN

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Methamphetamine has become an increasingly widespread drug of abuse in the United States. Methamphetamine use has been linked with HIV transmission risk behavior. The present study examined relationships between methamphetamine use, sensation seeking, psychosocial factors and high-risk sexual behavior in 586 men who have sex with men (MSM) attending a gay pride festival in a large southeastern U.S. city. One in 12 participants reported methamphetamine use in the previous 6 months. Methamphetamine users were significantly more likely than non-Methamphetamine users to report using other controlled substances, including marijuana, powder cocaine, crack cocaine, and nitrates (“poppers”). Methamphetamine users reported significantly more sexual partners (X = 12.90) than non-users (X = 4.54), Z = 3.14, p < .01 in the previous 6 months and higher rates of unprotected insertive anal sex and unprotected receptive anal sex. Methamphetamine users also scored higher in sensation seeking than non-users. The two groups did not differ in HIV transmission knowledge or attitudes concerning condom use. Integrated intervention programs for MSM methamphetamine users are needed. Such programs could combine substance use treatment, risk reduction counseling, and mental health services.

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BAREBACKING, INTERNET USE TO FIND SEXUAL PARTNERS, AND HIGH-RISK SEXUAL BEHAVIOR AMONG MEN WHO HAVE SEX WITH MEN

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The Internet has become an increasingly popular and efficient venue for individuals to meet sexual partners with shared sexual interests. In recent years, rates of unprotected anal sex have increased among men who have sex with men (MSM). The rise of and identification with a “barebacking” subculture where MSM consciously avoid condom use may be contributing to increased unprotected anal sex. The present study examined the relationships between identification with the barebacking subculture, using the Internet to find sexual partners, substance use, and high-risk sexual behavior in a sample of 586 MSM attending a gay pride festival in a large U.S. city. Individuals who indicated that they sought barebacking experiences reported higher rates of cocaine, marijuana, and amyl nitrate (“poppers”) use and were significantly more likely to have met a sexual partner online than individuals not identifying with this subculture. Participants who used the Internet to find barebacking partners reported more than twice as many sexual partners in the previous 6 months and significantly higher rates of unprotected anal sex (ps < .05). Clinical and community-based interventions are needed that specifically target MSM who bareback, and that tailor prevention messages to drug and sexual risk behaviors.

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STIGMA AND AIDS: CHALLENGES FACED BY COMMUNITY ORGANIZATIONS CONDUCTING HIV PREVENTION PROGRAMS IN THE UNITED STATES

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Previous research has documented the presence of AIDS-related stigma in the United States. Most prior studies have examined the attitudes of the general public towards persons living with HIV/AIDS (PLHA) and the attitudes of PLHA themselves. AIDS Service Organizations (ASOs) in the United States play a critical role in the delivery of HIV prevention services and have a valuable perspective on how stigma affects the lives of their clients and their own HIV prevention efforts. In order to understand the impact stigma has on HIV prevention services, we conducted in-depth qualitative interviews with ASO prevention directors (N=97) in all 50 U.S. States. Qualitative analytic approaches were used to identify key themes. Discrimination and stigmatization of HIV-positive persons was reported in many locations. The stigma associated with HIV interfered with disclosure of HIV status, risk-reduction behaviors, and HIV testing, creating barriers to HIV prevention efforts. ASO directors also reported significant community discomfort with candid conversations about sexuality and a lack of support from important cultural institutions. Results suggested that AIDS-related stigma was highest in states with low prevalence of AIDS, in rural areas, and in places with strong religious identification. Reducing the burden of stigma is critical to fighting the AIDS epidemic. Interventions to reduce AIDS-related stigma in the United States are needed.

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PDE-5 INHIBITOR USE AMONG GAY MEN: IMPLICATIONS FOR HIV/STD RISK

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We examined relationships between PDE-5 inhibitors (PDE-5i), other drugs, and high-risk sex in a sample of gay men. 119 participants completed an anonymous survey at a San Francisco gay street fair. Men were divided into 2 groups: any use of PDE-5i in the past 6 months vs. no use.

The overall average age was 44.7 years (SD = 9.01). 55 men (46%) reported PDE-5i use in the previous 6 months. Users were older (46.2 vs. 43.5) but this difference was not significant. 34% reported obtaining PDE-5i via website, friend, or sex partner. 27% reported using a PDE-5i > half of every time they had sex in the past 6 months. 39% reported unprotected anal intercourse in the past 6 months while using a PDE-5i. PDE-5i were used with alcohol (25%), another recreational drug (22%), and alcohol and another recreational drug (7%). There was a trend toward men reporting unprotected anal sex to be more likely to report recreational drug use (p < .10) and to be less likely to report alcohol use (p < .06). There were no significant differences in the number of men reporting unprotected anal sex by source of PDE-5i (prescription vs. other source).

Many men using PDE-5i also use recreational drugs, many do not, indicating HIV/STD interventions directed at recreational drug users may miss many PDE-5i users engaging in high-risk sex.

Funding was provided by the National Institute of Aging, R21 AG20419.

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NUTRITIONAL CHANGE IN MALE AND FEMALE CHURCHGOERS USING AN INTERNET-BASED INTERVENTION

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Guide to Health, a randomized test of an Internet-based intervention in 14 Southern Virginia churches, compared the nutritional and physical activity effects of the Internet program alone (I = n = 153) and with church-based supports (I+S, n = 180) to delayed control (C, n = 162). Of 495 participants, 92% attended church 1-2/week, 66% were female, 21% African American, median age=53 years. Nutrition change scores based on Block food-frequency questionnaires post-intervention and 1-year after baseline revealed that compared to C, I+S improved fat intake (m= -.3% vs. -.3% kcals) and fiber intake (m=1.74 vs. .38 g/1000 kcals) at post and in fruits and vegetable servings (F&V) at post (m = .84 vs .14 F&V/1000 kcals) and follow-up (m = .73 vs .31 F&V/1000 kcals). Although gender, age and race did not influence treatment effects, gender influenced nutritional goal attainment. At baseline 19% reported ≤50% fat kcals (12% men; 23% women, p < .01); 24% reported ≤5 F&V/day (12% men, 29% women, p < .01) and 23% ≥5 F&V/day (13% men; 28% women, p < .01). Compared to C, I+S achieved higher goal attainment rates for fat (post: 32% vs. 20%, p = .02; 26% vs. 14% men, p = .09; 34% vs. 23% women, p = .05; follow-up: 45% vs. 30%, p = .02; 19% vs. 17% men, n.s.; 28% vs. 17% women, p = .02) and for fiber (post: 42% vs. 24%, p = .002; 21% vs. 10% men, p = .03; 46% vs. 29% women, p = .002; follow-up: 44% vs. 26%, p = .002; 26% vs. 14% men, p = .08; 46% vs. 27% women, p = .001). Effects of I+S largely fell between C and I+S. Church-based supports may be important supplements to church-based Internet nutrition interventions, which need to use content and strategies that appeal more to men.

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DEVELOPMENT OF A SYSTEMATIC OBSERVATION SYSTEM FOR MEASURING SUN PROTECTION IN ELEMENTARY SCHOOLS

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Skin cancer is the most common form of cancer throughout the world. Sunlight exposure has been strongly linked to the development of skin cancer, with 80% of lifetime exposure occurring before age 18, much during school hours. Valid and reliable objective tools for measuring sun protection are necessary because self-report data from children is often unreliable and environmental interventions are becoming more commonplace.

In this study, the SOSUN (System for Observing SUN protective behavior) was developed. SOSUN is based on SOPLAY, a valid and reliable method for measuring physical activity in elementary school children. Seven elementary schools were selected for data collection. Approximately 4,100 observations of students were collected. Data collectors observed sun protective behaviors by conducting momentary ecological scans throughout the school day in designated zones. Children were assessed as whether or not they were wearing hats, long sleeve shirts, long pants or skirts, actively applying sunscreen, or standing under shade.

Inter-reliability was high for measures with an average of 0.95. Reliability was the lowest in scans of long pants or skirts (0.73). Results showed 39% girls and 23.6% boys were wearing long pants while only 3% girls and 4.5% boys were observed wearing hats. No children were observed to use sunscreen. 19.7% girls and 13.9% boys were wearing long sleeves and 29.4% girls and 24.6% boys were observed in shaded areas.

Results show that SOSUN produces reliable and replicable results when measuring sun protective behaviors. SOSUN may be useful in measuring the effectiveness of interventions.

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SMOKING CESSION AFTER PARTICIPATION IN AN INTERNET-BASED QUIT SMOKING WEBSITE

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Purpose: We assessed an Internet-delivered smoking cessation intervention. Based on formative research with smokers, the website included: 1) interactive, stage-based, self-help advice, 2) a ‘talking to your family’ and 3) ‘talking to your doctor’ modules.

Design: Participants were recruited through online advertisements and randomized to receive immediate or 1-month delayed access to the intervention.

Methods: Baseline demographic characteristics and smoking history were collected online. Participants were re-contacted at one month. Outcomes of interest were: cessation or quit attempts.

Results: We recruited 253 participants, with 99 (39%) completing follow-up (52 intervention, 49 control). Median age range was 30-45 years. 92% were white, 72% were female and 35% had completed college. The majority (87%) were in preparation stage. Participants lost to follow-up were similar in stage and demographic characteristics. Median session time was 7.3 minutes (inter-quartile range 2 to 17 minutes). Among the 52 intervention users, 75% used the self-help module. Further research on maintaining engagement and encouraging completion of ‘family’ and ‘doctor’ modules is needed.

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AN EMPIRICAL EVALUATION OF KNOWLEDGE AND ATTITUDINAL OUTCOMES FROM PROJECT BREATHE, A WEB-BASED SMOKING PREVENTION PROGRAM

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Project Breathe (PB) is a web-based smoking prevention and respiratory health education program that provides tutorials, video clips, worksheets, and laboratory experiments for middle and high school students. The program is used in public schools across Lancaster County, PA and surrounding counties. As part of an assessment of the effectiveness of the program, online Academic and Attitudinal questionnaires were incorporated into PB. The Academic questionnaire consisted of 12 questions that examined learning related to respiratory health, tobacco, and scientific methods. The Attitudinal questionnaire included 11 questions (eight behavioral intention and three tobacco use items) from the CDC’s Question Inventory on Tobacco. During the 2003-2004 academic year, 280 students completed both pre- and posttests; a series of t-tests were used to explore changes in this sample. Results from the analysis of a composite score that combined all behavioral intention items from the Attitudinal questionnaire showed a significant change in the predicted direction (t (256) = -5.34, p < .001). Further analysis of this questionnaire revealed that students were significantly less likely to report intentions to smoke cigarettes in the near future (t (279) = -2.69, p < .01) and 5 years into the future (t (270) = -2.04; p < .05) after completion of PB activities, as compared to pre-test. No significant changes were found for the Academic questionnaire. Overall, these data suggest that students who interact with PB reported significant changes in their smoking-related attitudes and support the feasibility and potential effectiveness of on-line prevention programs.

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HIV TREATMENT ADHERENCE AMONG PREGNANT WOMEN

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Antiretroviral medication taken during pregnancy greatly reduces the risk of transmitting HIV from mother to fetus. For medication to be effective, women must adhere strictly to the treatment regimen. Individuals who are HIV positive often have difficulty adhering; however, adherence has rarely been investigated in pregnant women who are HIV positive.

Women with HIV/AIDS who reported being pregnant in the past year (n = 37; 27% White, 65% Black) were interviewed as part of a statewide survey. Thirteen women had an elective abortion; 24 women delivered a live infant, miscarried, or were still pregnant. Women who reported following treatment were considered adherers; women who made minor changes or stopped taking treatment were considered non-adherers.

Only 15% of women who had an elective abortion adhered, compared to 50% of women who continued their pregnancy, p < .05. Among women who continued their pregnancy, those who adhered were more likely than non-adherers to report that they were comfortable talking to their health care provider about their sexual behavior, p < .01. There were no differences between adherers and non-adherers in the topics they discussed with their doctor. Women who continued their pregnancy were more likely to adhere to their HIV treatment regimen, suggesting that pregnancy may be an important motivating factor in treatment adherence. Although preliminary, the patient/provider relationship was related to adherence among HIV positive women who continued their pregnancy. Future research should address treatment adherence with larger samples of pregnant, HIV positive women.

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EMOTIONAL/COGNITIVE PROCESSING OF STRESSFUL LIFE EVENTS IS RELATED TO ANTIRETROVIRAL MEDICATION ADHERENCE IN HIV-SEROPOSITIVE GAY/BISEXUAL MEN

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People living with HIV are vulnerable to a range of stressful life and disease related events. Gay/bisexual men may be particularly vulnerable to these stressors that can negatively impact important health behaviors. The purpose of this study was to examine the relationship between emotional/cognitive processing of stressful life events and antiretroviral medication adherence in people living with HIV. An ethnically diverse sample of 92 gay or bisexual men living with HIV, who had CD4 cells between 150 and 500, and had never had an AIDS defining illness, were selected for this analysis. Participants wrote a 20-minute essay describing their emotional responses to a traumatic life event, and completed a battery of psychological assessments (BDI, STAI, ACTG Adherence Questionnaire). Essays were scored for emotional/cognitive processing according to reliable clinician rating. Mean interrater reliability for essay variables was .82. Emotional/cognitive processing was significantly related to % of missed medication doses over the previous 3 days (r = .24, p = .019) and was related to both state anxiety (r = -.24, p = .019) and to depression (r = -.314, p = .002). Mediational analyses demonstrated that the relationship between emotional/cognitive processing and antiretroviral medication adherence was mediated by reductions in anxiety. Substantial processing of major life stressors appears to provide benefit to HIV+ gay/bisexual men through its association with increased antiretroviral medication adherence. This effect is mediated by reductions in anxiety. Psychosocial treatments that emphasize substantial processing of stressful and traumatic life events may effect reductions in psychological distress and improve medication adherence.

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THE ASSOCIATION OF PTSD TO ART ADHERENCE AND DEPRESSION IN HIV

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Background: Being diagnosed with HIV can be traumatic. Symptoms of post traumatic stress can interfere with important self-care behaviors such as antiretroviral (ARV) medication adherence.

Methods: We studied 129 persons (100M, 29F) on ARVs who had detectable viral loads as part of a clinical trial of a provider-focused intervention for ARV adherence. We examined the impact of baseline PTSD, using the SPAN (Meltzer-Brody et al., 1999) on ARV adherence measured with an electronic pill cap over the subsequent 30 days. We assessed depression using a DSM IV compliant instrument (PC-SAD©).

Results: 44% of the sample screened in for PTSD, and 19% for major depression (MDD). PTSD severity was associated with depression (r=0.64) but not demographic variables. Continuous PTSD severity scores were significantly correlated with the average number of uncovered minutes of ART in the past 30 days (r=-0.28), the number of days that dosing was correct (r=0.28), and the average percent of correct doses (r=0.30). Using multiple regression we found that depression mediated the effect of PTSD on adherence; that is, when the depression score was included in the model, the coefficient for PTSD was smaller, and no longer significant. 47% and 38% of those with MDD and PTSD, respectively, were receiving antidepressants.

Discussion: PTSD was prevalent and under-treated in this population. Treating PTSD may lead to improved ARV adherence.

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TREATMENT ADHERENCE INTERVENTION FOR LOWER-LITERACY PEOPLE LIVING WITH HIV-AIDS

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Background: Lower reading literacy is related to adherence to antiretroviral (ARV) therapies and health outcomes in people living with HIV/AIDS. We developed and tested a nurse-delivered pictorial-based skills building intervention to improve treatment adherence in HIV positive persons with limited literacy skills. Methods: The intervention consisted of two counseling sessions plus one booster delivered by a nurse and grounded in social cognitive models of health behavior. Participants were followed monthly for three months. Twenty men and 10 women living with HIV/AIDS who were currently taking ARV and who scored below the cut-off on a literacy test were enrolled (mean age 44.8, 90% African American). Results. Participants significantly increased their AIDS knowledge from 57% correct at baseline to 79% correct at 3-month follow-up. For motivation, intentions to not miss any doses of ARVs increased significantly from baseline at all three follow-ups. For behavioral skills, self-efficacy for taking medications without missing a dose and taking medications on time increased from baseline at all three follow-ups. Also, the number of medications missed in the previous three days assessed at follow-ups compared to rates of missed doses at baseline showed significant reductions in missed doses at the 2-month and 3-month follow-ups. There was also a significant reduction in the number of times medications were taken off schedule. Reductions in the combination of missed doses and off-schedule doses occurred at all three follow-up assessments. Conclusions. Findings suggest that a brief nurse-delivered counseling intervention may have a substantial benefit for medication adherence among people living with HIV who have lower health literacy skills.

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D-6

DOES A PEER SUPPORT INTERVENTION ENHANCE ANTIRETROVIRAL ADHERENCE?: LONGITUDINAL FINDINGS OF PROJECT HAART

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HAART has demonstrated unprecedented efficacy yet requires strict adherence to complex regimens to inhibit viral replication and achieve clinical benefit. This research evaluates longitudinal data collected from a randomized, controlled intervention trial to enhance HAART adherence through a peer support intervention among a sample of patients in care at an inner city HIV clinic. Participants, enrolled in the study from 2000 to 2002, were 136 mostly African American (46%) and Latino (44%) patients on HAART. Adherence was assessed with multiple self report (SR) measurements, continuous monitoring with Medication Event Monitoring System (MEMS), and laboratory reports of virologic and immunologic factors. Social support was measured at all time points, drawing distinctions among affirmative, emotional, spiritual, and informational support received with respect to taking HAART. We test a model of the intervention’s mechanism of effect, using self-efficacy, negative affective states, and knowledge of the medication regimen as mediators. Both intent to treat and as-treated analyses show no significant post-intervention differences on social support or SR adherence. Testing the mediated model using SEM reveals a significant relation between intervention participation and SR adherence. The present analyses will be reevaluated with the newly-available MEMS data, and comparisons will be made between SR and MEMS. Effects of this and other interventions to date, delivered to an experienced HIV population, have been modest and generally have not held up over time. Culturally relevant, exportable interventions supported by rigorous RCTs are urgently needed to increase adherence, especially among resource poor, inner city, substance-using populations.

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D-7

REGULAR WALKING AFTER REHABILITATION OF CHRONIC LUNG DISEASE

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We examined long-term outcomes and regular walking among patients with chronic lung disease who participated in a maintenance intervention after pulmonary rehabilitation. After rehabilitation, 83 patients were randomized to 12-month maintenance intervention and 81 to standard care. Staff contacted maintenance patients weekly to obtain minutes walked, summed into total minutes walked over 12 months post-rehabilitation. Of the 83 maintenance patients, 75 completed the intervention (1 withdrew/7 died). Lung function, walking self-efficacy, exercise performance (6-minute walk [6MW]), and breathlessness during activities of daily living (ADLs) and after 6MW were measured post-rehabilitation and 6 & 12 months later in all subjects. Patients who completed maintenance walked 476±301 minutes over 12 months (92 minutes/week). The maintenance group was divided into low vs. high adherence at the 50th percentile (3650 minutes). One-way ANOVA show that high adherence patients were significantly less severe disease (F1,82=5.28, p<.05), covered more distance during 6MW (F2,85=6.50, p<.05), reported less breathlessness after 6MW (F1,85=5.83, p<.05) and during ADLs (F1,85=5.52, p<.05), & had higher walking self-efficacy (F1,71=9.66, p<.01) at 12-months vs. low adherence patients. Differences remained significant for breathlessness after 6MW and walking self-efficacy after controlling for post-rehabilitation scores on these measures. Patients who maintained adherence from first through last 6 months showed significantly less decline in these measures at 12 months, reaching significance for disease severity (F2,65=1.94, p<.05) and breathlessness during ADLs (F2,65=1.95, p<.05). Findings support association between health and regular exercise after rehabilitation of chronic lung disease. While declines over time are characteristic in this population, regular walking appears related to higher self-efficacy and less breathlessness with exertion 12 months after rehabilitation.

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D-8

PROSOCIAL BEHAVIOR AS A MOTIVATIONAL STRATEGY TO FACILITATE PHYSICAL ACTIVITY AMONG OLDER ADULTS: A PILOT STUDY

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The purpose of this 3-month pilot study was to determine whether participants randomized into an exercise intervention incorporating “prosocial behavior” (earning funds for a cause of one’s choice through engaging in physical activity) demonstrated increased physical activity compared to individuals randomized to a traditional exercise therapy condition. 38 men and women aged 60 or above were randomly assigned to either a prosocial behavior physical activity (PBPA) condition or an exercise therapy (ET) condition for 3 months. ET participants engaged in supervised center-based exercise 2 times weekly, PBPA participants engaged in supervised center-based exercise 2 times weekly, and were allowed to earn money for a cause of their choice through recording their total daily steps using pedometers onto activity logs. The logs were returned to staff weekly, and a scale of weekly steps was used to determine the amount of funds that each participant generated. Physical activity (total kcal/week) was assessed at baseline and 3 months using the CHAMPS questionnaire. An ANCOVA employed to test the effect of treatment upon 3-month kcal/week, adjusting for age, gender, BMI and baseline kcal/week revealed that PBPA participants gained(£E) 41(657.62) kcal/week vs. -40(659.09) kcal/week for ET participants. However, the difference was not significant (p=0.05) due to small sample size. Despite less supervised exercise, PBPA participants accrued higher levels of total physical activity than ET participants. These results are promising, and suggest that prosocial behavior may be an effective strategy for promoting physical activity among older adults.

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D-9

LIMITING EXERCISE OPTIONS: DEPENDING ON A PROXY MAY INHIBIT EXERCISE SELF-MANAGEMENT

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Bandura notes that people enlist the help of a proxy when they believe they have insufficient self-regulatory skills and may better achieve desired goals by using a proxy-agent. However, he cautions that proxy dependence may limit mastery of self-regulatory skills and weaken related efficacy beliefs. Our study examined the influence of proxy-contact on exercisers’ (N=56) social cognitions and behavior for proxy-led and independent exercise conditions. Participants self-determined preference for either high or low proxy-contact and then completed measures of self-efficacy, satisfaction, perceived difficulty and behavioural choice for the proxy-led condition and the unexpected independent exercise condition. A 2 (high/low contact) by 2 (in-class/independent) mixed-model MANOVA revealed significant main effects for contact preference and exercise context as well as a significant interaction between these factors (p’s<.01). High-contact participants reported lower self-regulatory efficacy and higher perceived difficulty (p’s<.05). All participants reported lower efficacy, satisfaction and higher difficulty when faced with exercising independently (p’s<.005). Last, high-contact individuals suddenly facing independent exercise reported lower self-regulatory efficacy and higher difficulty (p’s<.05) compared to their low-contact counterparts. Chi-square analysis revealed that significantly fewer high-contact participants chose self-managed exercise alternatives. Further, a significant one-way MANOVA (p = .008) indicated that high-contact participants were less confident in their alternative to participating in an exercise class, perceived it as more difficult, and expected less satisfaction from it than low-contact participants (p’s<.05). Results support Bandura’s theorizing and previous exercise research on the dilemma of proxy-agency. These findings implicate a risk for physical activity adherence outside proxy-led exercise for persons wanting high proxy contact.

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D-10

COMPENSATORY HEALTH BELIEFS AND ADHERENCE TO SELF-SET DIETING RULES

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A large number of people engage in dieting behaviors, but a majority seems unsuccessful to either achieve their goals or maintain them. We propose that a certain type of health beliefs - compensatory health beliefs (CHBs) - may hinder people in fully adhering to their self-set rules to achieve their goals. CHBs are convictions that the negative effects of an unhealthy behavior (e.g., eating a fatty meal) can be compensated for by engaging in another, healthy behavior (e.g., exercising). We suggest that people use CHBs as a means to regulate desired but prohibited behaviors. To the extent that the compensatory behavior does not, in fact, compensate for the unhealthy behavior, engaging in CHBs will have adverse effects. In this study, a higher CHB score was related to lower adherence to self-set dieting rules in a sample of female dieters. Moreover, as predicted by our theoretical model, the more self-determined the goals were, the less CHBs were used, and the more they adhered to their dieting rules. Gaining a better understanding of how such beliefs interact with behaviors and outcomes will further the knowledge of factors hindering successful weight loss dieting.

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D-11

DOES RECEIVING TREATMENT PREFERENCE AFFECT ADHERENCE AND WEIGHT LOSS?

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Increased attention has been given to patients’ preference for treatment and involvement in decision-making. Evidence suggests that addressing treatment preference results in improved adherence and reduced attrition. We examined the difference in adherence, attrition and weight loss at six months among subjects in a standard behavioral treatment study who were randomized to either receive their preferred treatment (preference=yes) or be assigned (preference=no) to a treatment. The two treatment options were standard calorie and fat restricted diet vs. standard calorie and fat restricted lacto-ovo-vegetarian diet.

The sample (N = 182) was predominantly female (87.6%), Caucasian (70.3%), and middle age (44.1 + 8.6years). Adherence to attendance was 70.4% vs. 73.1%, to self-monitoring 63.6% vs. 67.7%, and to calorie goal 57.5% vs. 63.6% in the preference-yes group and the preference-no group, respectively, P = .05. Attrition at the 6-month assessment in the preference-yes group was 13.3% vs. 14.1% in the preference-no group. Using the intention-to-treat approach, weight loss (baseline – 6 months) was 15.8 + 14.2 lbs. in the preference-yes group and 16.7 +/− 13.6 lbs. in the preference-no group. P = .689. In this sample, we found no significant difference in adherence, attrition, or weight loss between those who received the treatment of their choice compared to those who were assigned to a treatment without regard to their preference. Our findings do not support what has been reported in the literature about the positive effect of treatment choice on study outcomes.

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D-12

INFLUENCE OF PERCEIVED BARRIERS AND FAMILY ENVIRONMENT ON ADOLESCENT DIABETES SELF-MANAGEMENT

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During adolescence, responsibility for management of type 1 diabetes shifts from parent to youth and there is frequently a decline in adherence and metabolic control. Adherence to the diabetes regimen can be enhanced with a supportive family environment. The purpose of this study was to examine the relationships between children’s perceptions of general family support and barriers to diabetes self-management, parents’ perceptions of family routine/chaos and parent-child communication, and diabetes self-management (DSM) and glycemic control (HbA1c). Perceived DSM barriers, family social support, family routine/chaos, parent-child communication, and adherence to DSM were assessed in 87 youth ages 10 to 16 with type 1 diabetes and their parents. In regression analyses controlling for age, youths’ report of DSM was related to youth perceptions of barriers to DSM and general family support (adjR2 = .18). Parents’ report of DSM was related to youth perceptions of barriers, parent report of family routine/chaos, and parent report of parent-child communication (adjR2 = .27). HbA1c was related to age and youth perception of general family support (adjR2 = .13). Measures of family environment and DSM-specific barriers may be useful for identifying youth at risk for problems with DSM.

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D-13

MEDICATION BARRIERS & ANTI-HYPERTENSIVE MEDICATION ADHERENCE: THE ROLE OF LOCUS OF CONTROL AS A MODERATOR

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Despite the efficacy of pharmacological treatments, a majority of hypertensive patients lack adequate blood pressure control. Understanding factors explaining hypertensive medication adherence is vital. This study examined locus of control as a moderator of the relationship between medication barriers and anti-hypertensive medication adherence. Baseline data were obtained from 588 hypertensive veterans who were enrolled in a clinical trial to improve blood pressure control. Results indicated that both internal locus of control β = -.74, SE = .01, t(542) = -2.64, p < .01 and chance locus of control β = .47, SE = .02, t(545) = 2.17, p < .05 served as moderators for the relationship between medication barriers and medication adherence. As indicated by the betas, effect sizes for both were considered large. Decomposition of the interactions using simple slope analysis revealed that the relationship between medication barriers and medication adherence was strongest when internal control was high (b = -.24, p < .01) and chance locus of control was low (b = -.23, p < .01). Our results indicate that higher internal and lower chance control are beneficial when barriers to medication adherence are low, but at high perceived barriers, locus of control plays less of a role in medication adherence. Hence, interventions to improve medication adherence should consider tailoring interventions towards level of perceived medication barriers and locus of control.

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**D-15**

THE MEDICATION-TAKING QUESTIONNAIRE FOR MEASURING PATTERNED BEHAVIOR ADHERENCE

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A contributing factor to decreased medication adherence is the inability of individuals to establish routines and remember to take medications. The Medication-Taking Questionnaire (MTQ: PB) was developed to measure behavioral issues previously identified in the Medication Adherence Model (Johnson, 2002). A methodological study of the MTQ: PB was conducted in three phases. In Phase I, the content validity of the items was assessed by 20 health care professionals and individuals under treatment for hypertension. Phase II administered the revised items to 227 participants in two groups to perform temporal stability and construct validity testing. Temporal stability was reexamined at a one-week interval.

RESULTS: Phase I: Of the 20 Patterned Behavior items, all but one achieved acceptable overall clarity and content validity. Fifteen items underwent grammatical or clarity revisions as suggested by participants. Phase II: Item and factor analyses reduced the MTQ: Patterned Behavior to 16 items with three subscales: (a) Regularity of Lifestyle (explained variance = 10.7%; coefficient alpha = .73), (b) Medication Routine (explained variance = 16.2%; coefficient alpha = .76), and (c) Remembering to Take Medications (explained variance = 14.9%; coefficient alpha = .76). The overall explained variance was 50.6% and coefficient alpha was .71. Phase III: Temporal stability estimates ranged from .60 to .67. Construct validity estimated were confounded by the lack of similar instruments as key components of existing cognitive and self-regulatory models and identifies an additional behavioral component. The succinct organization of the MAM may facilitate healthcare providers' ability to evaluate and individualize interventions for promoting medication-taking.

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**D-16**

RELATIONSHIP BETWEEN REFERRAL SOURCE AND OUTCOMES WITHIN A CO-OCCURRING DISORDERS INTEGRATED TREATMENT PROGRAM

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The purpose of this initiative is to provide integrated services for homeless individuals with co-occurring disorders. Integrating both mental health and substance abuse services into one treatment setting has proven superior to a parallel approach and has shown increasing promise for keeping nonviolent offenders from cycling in and out of jail. Twenty-five clients were admitted into a six-month residential program and received integrated treatment that included psychiatric and addiction services, case management, and aftercare services. Repeated measures analyses of variance demonstrated that clients improved significantly on both substance use and mental health symptomatology. At baseline, participants reported using illicit drugs an average of 3.16 days during the past month compared to 0.16 days at six-month follow-up, F (1, 24) = 5.4, p < .05. Concerning mental health, the Impact of Events Scale (IES) was 14.7 at baseline and 7.2 at follow-up, F (1, 24) = 15.7, p < .01. Further analyses revealed a significant relationship between referral source and adherence. At follow-up, a significantly greater proportion of clients who were court ordered into treatment reported abstaining from substance use (93%), compared to clients who were self-referred (50%), X2 (1, N=25) = 6.34, p < .05. These results underscore the effectiveness of integrated services and suggest that abstinence can be obtained among clients referred from the correctional system. Diverting such individuals from the criminal justice system to community-based treatment appears to be a promising strategy for improving the lives of individual non-violent offenders.

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**D-17**

IMPACT OF INTENSIVE MRI SURVEILLANCE IN BRCA1/2 CARRIERS

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OBJECTIVE: Studies in the past year have suggested that magnetic resonance imaging (MRI) is a useful, complementary adjunct to mammography and clinical breast exam (CBE) in screening women at high risk for breast cancer due to BRCA1/2 mutations. However, little is known about the impact of such intensive surveillance on distress and subsequent adherence. METHODS: 31 female BRCA1/2 mutation carriers (mean age=42.6 range 27-64; 100% Caucasian) enrolled in an intensive surveillance program consisting of alternating MRI and mammography every six months, plus bi-annual clinical breast-exam, and monthly breast self-examination. Intrusive thoughts about cancer risk were assessed prospectively using the Impact of Events Scale (IES) at baseline and at 6 months. RESULTS: During the first 8 months of the study, 43% of participants received an abnormal finding on at least 1 out of 4 exams that required either a follow-up exam or biopsy. Women with an abnormal result were more likely to experience an increase in intrusive ideation (p<.05). There was no difference in short-term adherence between these two groups; however, two women opted for prophylactic mastectomy after becoming distressed by abnormal results.

CONCLUSION: At least initially, intensive surveillance yielded a high rate of abnormal findings, resulting in an increase in intrusive thoughts about cancer risk. Receipt of abnormal results did not affect screening adherence, at least in the short term, but appeared to influence decision-making about prophylactic mastectomy.

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ADHERENCE TO PHYSIOTHERAPY REHABILITATION: A TEST OF PROTECTION MOTIVATION THEORY

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Improving adherence is thought to enhance functional outcomes. This study tested the ability of an intervention grounded in Protection Motivation Theory (PMT) to improve rehabilitation adherence, and investigated the adherence-functioning outcomes relationship. Sixty-nine people with sprained ankles starting physiotherapy were randomly allocated to either PMT, neutral or no information groups. Video and written information about ankle sprains and physiotherapy were administered before the physiotherapy rehabilitation commenced. The intervention’s impact was tested using Attitudes to Ankle Sprains and Physiotherapy Scale, a measure of PMT-based attitudes (severity, vulnerability, response efficacy and self efficacy). Adherence was evaluated at each treatment by clinician attendance, Sport Injury Rehabilitation Adherence Scale (Breuer et al., 1995) for clinic-based physiotherapy and self-reports for the home programme. Ankle function was assessed prior to and following the rehabilitation with the Lower Limb Task Questionnaire (McNair & Prapavessis, 2003) and Motor Activity Scale (Wilson et al., 1998).

The PMT group’s significantly stronger attitudes (p<.05), with the exception of self-efficacy, provided evidence of the intervention’s successful impact. Adherence scores were high for all three groups, and hence the PMT group did not differ significantly from the other two groups on the adherence measures. The groups’ ankle function did not differ significantly at the end of the rehabilitation, but the sample improved significantly on both function measures over the duration of the treatment (p<.05). Significant correlations were noted between clinician attendance and improved functional ability on LFTQ, response efficacy and home elevation, and self-efficacy and home exercises (p<.05). Possibly PMT based interventions are more beneficial for patients identified as poor adherers during rehabilitation.

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D-19

A PROSPECTIVE POPULATION-BASED STUDY OF THE EFFECTS OF EMOTIONAL FACTORS ON ADHERENCE TO MAMMOGRAPHY SCREENING

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Theories of behavior change emphasize rational predictors. Research on the contribution of emotional factors is scant. To our knowledge, this study is the first to use a nation-wide approach to sampling and to use clinical records to prospectively explore emotional predictors of mammography adherence. A randomly selected sample of 10,000 of all Icelandic women aged 42.2-69.0 years, not previously diagnosed with breast cancer, were recruited by mail. Participants (n=534) completed questionnaires for: demographic/medical variables, cancer-specific distress (Impact of Events Scale), and general-distress (depressive symptoms and anxiety subscales, Brief Symptom Inventory); Mammography-specific distress was also assessed (e.g., “Thoughts about undergoing mammography make me distressed”). Three years after completion of questionnaires, mammography adherence (<2.2 yr) was determined using nation-wide records. Non-adherence to two-year national screening guidelines was found for 27.3% of the sample. Multiple logistic regression revealed that non-adherence to free mammography screening was independently predicted by: older age (OR= .97, CI= .95 - .99), higher levels of depressive symptoms (OR= .72, CI= .54 - .96), higher levels of mammography-specific distress (OR= .64, CI= .51 - .81) and lower levels of cancer-specific distress (OR= 2.3, CI= 1.4-3.6). Thus, emotional factors selectively influence adherence to mammography screening guidelines. Interventions to increase adherence to cancer screening guidelines should address the role of such factors to maximize effectiveness.

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D-20

PREDICTORS OF EDUCATION/TREATMENT NON-COMPLIANCE AMONG MALE AND FEMALE DUI OFFENDERS

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Existing literature suggests that female DUI offenders differ from male DUI offenders in a variety of ways (e.g., lower recidivism rates), but little is known about factors that relate to DUI education/treatment adherence for male and female DUI offenders. This study focuses on education/treatment adherence by examining 43,027 completed DUI assessment records collected in Kentucky during 2002 and 2003. These records contain (1) demographic information about the person convicted of DUI, (2) information about the offense (e.g., BAC, county of conviction), (3) results of the bio/psychosocial assessment (screening instruments and DSM-IV checklist), (4) whether the person was referred to an education and/or treatment intervention, and (5) if the person was compliant with their education/treatment referral plan. Separate logistic regression analyses predicting education/treatment non-compliance were conducted for male (n=35,459) and female (n=7568) DUI offenders. Results suggest that younger ages, previous DUI convictions, higher Drug Abuse Screening Test (DAST) scores, and the intensity of the education/treatment modality are significant predictors of non-compliance for both males and females. Meeting DSM-IV criteria for substance dependence was an additional significant predictor for males, whereas being convicted of DUI in a dry county (i.e., where alcohol sales are illegal) was a significant predictor only for females. The results from these analyses suggest that education/treatment providers may have a core set of predictors to identify clients who potentially have high risk for not complying with their education/treatment plan. Possible barriers for women in dry counties include fewer treatment options and increased stigma.

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D-21

TAILORING HEALTH INFORMATION FOR MOTIVATING FRUIT AND VEGETABLE CONSUMPTION

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Two experiments examined whether tailoring messages to men’s and women’s a) monitoring/blunting coping style (MBCS: the tendency to either attend to and amplify or distract oneself from and minimize threatening health information), and b) self-regulatory focus (SRF: a preference for a promotion versus prevention approach to health) was an effective strategy for promoting fruit and vegetable consumption (FVC). In study 1, 535 (69% female) callers to the NCI’s Cancer Information Service (CIS) completed an assessment of MBCS (Miller, 1987) and were randomly assigned to receive MBCS matched or mismatched messages. In study 2, a trend emerged for SRF matched messages to promote fruit and vegetable consumption after 1-month among women, F(1,35)=3.15, p<.08. In both studies, the effects faded at 4 months, p>.05. Together, these findings suggest that the effectiveness of tailoring messages to individuals’ information processing style may be moderated by gender.

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TWO-WAY PAGERS AS A MOTIVATIONAL AND EDUCATIONAL TOOL IN A NUTRITION AND PHYSICAL ACTIVITY INTERVENTION

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Using technology to convey health promotion and disease prevention messages may enhance public health interventions. This study examined the feasibility and acceptability of using two-way pagers in a nutrition and physical activity intervention research trial for overweight (BMI > 90th percentile) African American adolescent (12-16 years) girls. The sample included 32 females participating in the treatment condition of the program who carried the pager for a minimum of one month. Program staff transmitted generic nutrition, physical activity, and motivation messages to all participants. Additionally, individualized messages created by each participant to reflect personal goals, were sent. Participants completed an original questionnaire that assessed the acceptability of the pager and participants’ perceptions of its utility in the program. Data relating to the number of pages received and returned, pager use difficulty, and cost were collected. Nearly all participants (95%) enjoyed using the pager and the majority (75%) reported that the messages helped them to improve their eating habits and increase their physical activity. The primary cost burden of this aspect of the intervention was the cost of purchasing the pager devices. Interactive communication can be a feasible aspect of health promotion programs that empowers participants over their own health, and reinforce program messages. Health programs and agencies should examine the cost effectiveness of implementing such technology.

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ADAPTATION OF AN AUTOMATED TELEPHONE SYSTEM TO PROMOTE PHYSICAL ACTIVITY IN AUSTRALIA

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Recent developments utilising telecommunications technology provide an opportunity to research a range of questions with respect to generalizability and transferability of such programs within and between countries. The Telephone Linked Computer (TLC) system designed by Boston Medical Centre has been shown to improve health behaviours in trials conducted in the USA. This system is being trialled to assess its acceptability and usability to improve the prevention and management of chronic diseases such as diabetes in Australia. The TLC physical activity programme is an automated telecommunications system that functions as an at-home monitor, educator and counsellor. Users contact the system on average once a week and answer questions on their level of activity. The system is equipped with speech recognition software to process answers which are stored in a database and are used to control the direction of the conversation. TLC uses digitized human speech to provide feedback on progress and to offer a range of educational material on benefits and barriers associated with physical activity participation. 20 individuals from Brisbane, Australia, who indicated living a sedentary lifestyle, were asked to access the system weekly. Their feedback and satisfaction level were assessed by questionnaires and in interviews after 2 and 4 weeks. These results have been used to identify issues associated with transferring content and logic from a US-designed TLC system to the Australian context and will be used to conduct further trials of this and other future systems in Australia.

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IDENTIFYING THE CHARACTERISTICS OF SEDENTARY GROUPS USING SIGNAL DETECTION METHODOLOGY IN THE NCI HEALTH INFORMATION NATIONAL TRENDS SURVEY

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Developing effective intervention strategies for the 24-28% of US adults who are sedentary requires that we gain a better understanding of the multidimensional factors that influence sedentary lifestyles. This study identified key characteristics of various subgroups with lower and higher rates of physical inactivity using signal detection methodology. We randomly partitioned data from the nationally representative Health Information National Trends Survey (HINTS; N=6,369) into two samples. Exploratory analyses were employed on the first sample to identify various subgroups, and confirmatory analyses were conducted on the second sample. The signal detection analyses identified eight distinct subgroups with varying rates of inactivity. Three subgroups had inactivity rates greater than 40%, while the lowest subgroup had a rate of 12.9%. The highest inactivity subgroup (50%) consisted of college-educated individuals in fair/poor health and who watched 4+ hours of TV/day. The second highest inactive subgroup (47.8%) was composed of individuals without a college education and with the lowest values on all communication variables. The third highest inactive subgroup (43.7%) consisted of those without a college education, who read the newspaper, and were obese. Confirmatory analyses validated the findings of the exploratory analyses. By applying signal detection methodology to data from a nationally representative communication survey, we were able to identify characteristics of sedentary individuals that should be useful in creating evidence-based, tailored intervention strategies.

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RANDOMIZED CONTROLLED PILOT STUDY OF A HANDHELD COMPUTER DELIVERED INTERVENTION TO PROMOTE BRISK WALKING IN SEDENTARY OLDER ADULTS

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This intervention study builds on previous research that used handheld computers as assessment tools to collect data on lifestyle patterns and related ecological factors that may facilitate or hinder healthful behaviors, such as physical activity. This first-generation randomized controlled pilot study evaluated the efficacy of using handheld computers to deliver an intervention that promoted brisk walking in 37 sedentary older adults (57% men, 78% Caucasian, 83% married, mean age = 60.1 years). Participants completed demographic and CHAMPS physical activity questionnaires, were randomized to the handheld computer delivered intervention or wait-list control, and completed the CHAMPS questionnaire at the end of the 8-week study. Participants were instructed to answer questions and receive feedback by interacting with the experimenter-designed, pre-programmed intervention program on the handheld computer during the afternoon and at the end of each day. As reported on the CHAMPS, the intervention participants reported 107 minutes per week for the wait-list control group (one-tailed test, p=.05). Intervention participants interacted with the handheld computer program on 68% of the intervention program on the handheld computer during the afternoon and at the end of each day. As reported on the CHAMPS, the intervention participants reported 107 minutes per week for the wait-list control group (one-tailed test, p=.05). Intervention participants interacted with the handheld computer program on 68% of the anticipated occasions during the study. Most participants (71%) reported liking using the handheld computer and responding to questions on it. Handheld computer delivered interventions represent a minimally intrusive, relatively easy to use, and potentially cost-effective method to promote a healthy behavior, such as brisk walking. (Study supported by: NHLBI-NIHST32H107034 & Stanford University’s Office of Technology Licensing)

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USING A PERSONAL DIGITAL ASSISTANT (PDA) FOR DIETARY SELF-MONITORING AS PART OF A WEIGHT LOSS PROGRAM

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Dietary self-monitoring is a strong predictor of successful weight loss. The extent to which people self-monitor varies greatly over time. The goal of this study was to investigate whether using a PDA increased the frequency of dietary self-monitoring and improved weight loss in comparison with paper and pencil self-monitoring. Sixty-two women (n=57) and men (n=5) (BMI >25 and <30) participated in a university sponsored 24-week behavioral weight loss treatment program. Participants attended weekly meetings focusing on the modification of eating and exercise habits through the use of behavioral strategies and self-management skills. Participants were instructed to reduce their energy intake to 1200-2200 kcal/day and to gradually increase their physical activity to a minimum expenditure of 1000 kcal/week. Participants kept food and exercise diaries using a PDA (Palm Zire21) installed with CalorieKing software. The diaries were electronically submitted at each weekly meeting. Weight loss and self-monitoring frequency were compared to women and men (n=116) who previously participated in a similar behavioral weight loss treatment program, but who used the standard paper/pencil method for self-monitoring of diet and exercise. No difference in weight loss was found between the PDA (14.4 lbs ± 13.2) and paper/pencil groups (15.8 lbs ± 11.5) (p=.48). Additional data on compliance with self-monitoring, adherence to behavioral prescriptions, and attitudes towards the PDA will be presented.

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TELEPHONE VS. MAIL INTERVENTIONS DURING EXERCISE ADOPTION AMONG RURAL ADULTS AT RISK FOR TYPE 2 DIABETES (T2DM): EFFECTS ON MOOD, PHYSIOLOGY, AND ADHERENCE

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Evidence documents that sedentary lifestyle and obesity are risk factors for T2DM. Prevention is important because treatment is often unsuccessful. Previous investigations demonstrated the efficacy of telephone-based interventions for adoption of exercise among healthy adults. A follow-up showed that gains may be maintained via more economical mail based contacts. Unaddressed is whether mail based approaches are efficacious during the adoption stage among individuals at risk for T2DM. In this pilot study, 20 individuals at risk for T2DM (based on age, body mass index, sedentary lifestyle) were randomly divided into two groups. One received a 16-week cognitive-behavioral intervention delivered weekly by telephone and the other received the information by mail. Participants lived in the rural western U.S. extending intervention research to an understudied population. They underwent physiological testing at pre- and post-treatment. Results demonstrated improvement in physiological variables (HgA1c, BMI, VO2) for both groups (p < .05). A slight exercise adherence advantage (d = .16) was found for the phone group. Both groups showed improvement in general mood (p < .05) but a significant interaction (p < .01) revealed larger improvements for the phone based intervention. Although these findings suggest adherence and mood advantages for a phone based intervention during the adoption stage of exercise among rural populations at risk for T2DM, they also demonstrate that a less costly mail program achieved behavior change. Larger comparison studies are indicated.

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UTILIZATION OF AUTOMATED TELEPHONE SYSTEMS FOR DIET AND PHYSICAL ACTIVITY: A CROSS STUDY ANALYSIS

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Interactive, multi-contact computer-based health interventions are more common than ever, yet more data exist on the effectiveness of these programs than on their use. The effectiveness of a automated telephone system called Telephone Linked Care (TLC) has been applied and tested in over ten controlled studies. This study examined the factors related to the use of four TLC systems which targeted either diet or regular moderate physical activity. Two of the studies targeted diet, EAT (adult primary care population, n=148) and DietAid (adults with hyperlipidemia, n=115), and two studies targeted physical activity, RUN (primary care population, n=150) and CHAT (community sample of older adults, n=75). Participants were asked to call a toll-free number once a week, on average, for a six-month period, except for CHAT, which included 15 computer-initiated calls over 1 year. Descriptive statistics and linear regression analyses were used to examine utilization and demographic variables related to use. Across the four studies, 61-99% of each study sample completed >1 call and the mean number of calls ranged from 6-14. Adherence rates (number calls made/number of calls scheduled for that system) were about 31% RUN, 77% CHAT, 37% EAT and 51% DietAid. Demographic variables were associated with the use of the diet systems but not the physical activity systems. Positive associations were gender (female) for DietAid and age for EAT. Race (non-white) was negatively associated with use for EAT. These data are helpful in understanding how to better design automated, multi-contact interventions for all populations.

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DO MINIMAL CONTACT PARENT AND ADOLESCENT PRINT COMMUNICATIONS ADDRESSING FITNESS INFLUENCE ADOLESCENT SUBSTANCE USE?

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Purpose: The objective of this study was to test the efficacy of minimal contact parent/caregiver and adolescent print communication materials addressing fitness for influencing alcohol and drug consumption among adolescents, and examine the moderating role of prior drug use on intervention effects. Methods: A total of 684 adolescents from a suburban high school in northeast Florida participated. A randomized control trial was conducted with three-month post-intervention follow-up. Participants were assigned to receive either: 1) parent print communications consisting of three mailed postcards sent one per week, or 2) adolescent print communications consisting of three flyers sent one per week. Results: Analyses of participants showed an overall significant group x time interaction MANOVA for alcohol behaviors (F(4,344)=2.48, p=.04), with univariate tests showing significantly less alcohol use frequency and problems over time (p<.05) among youth exposed to parent versus adolescent print materials. Similar results were found favoring parent communications for improving behavioral capability and self-control of drinking. Meanwhile, overall repeated measures factorial MANOVAs for group x time prior drug use were significant for alcohol behaviors, alcohol initiation, drug behaviors, and drug initiation (p<.05), with univariate tests indicating that drug use youth receiving parent print communications showed less alcohol frequency, alcohol initiation, marijuana frequency, and marijuana initiation over time, than drug using youth receiving adolescent print communications. Conclusions: Minimal contact print materials addressing fitness/hyperactivity and alcohol prevention and targeting parents/caregivers of high school adolescents had a positive influence on substance use, and this effect was moderated by pre-intervention drug use status.

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ONLINE HIV KNOWLEDGE INTERVENTION PRODUCES CHANGES IN SELF-EFFICACY AND OUTCOME EXPECTANCIES

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This study represents one of the first online randomized control trials (RCT) of an Internet delivered HIV risk reduction intervention including HIV facts, risk reduction, and information about living with HIV. The information was presented via a story line between two MSM, interspersed with interactive graphics. Ninety rural men who have sex with men (MSM) were randomly assigned to an experimental or a wait-list control group after completing the pre-test (T1). The experimental group immediately began intervention, with a post-test (T2) at 7 days and 7 day follow-up (T3). The wait list group retook the pretest 7 days later (T2), then began the intervention and completed the post-test 7 days later (T3) and a 1-week (T4) follow-up. Self-efficacies (condom assertiveness and communication), and outcome expectancies (communication, feelings, rate of anal sex) were assessed at each time period. A 2 (group) X 3 (T1 – T3) ANOVA indicated significant interaction effects, with significant increases in self-efficacy and outcome expectancies contingent upon participation in the intervention. No change during the waiting period between T1 and T2 for the wait-list control group was found. Intervention effects were maintained through the week follow-up. These results support the ability of Internet delivered interventions to change behavioral risk reduction follows cognitive changes.

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COMPUTERIZED ASSESSMENT OF SEXUAL RISK BEHAVIOR WITH LOW-LITERACY POPULATIONS

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Surveys designed to collect data on participants' sexual health behavior present two significant challenges. First, the social context of a face-to-face interview (FTFI) can affect the self-reporting of sensitive sexual behavior information. Research has shown that participants report lower rates of socially undesirable behavior during FTFIs. Second, low-literacyparticipants often have difficulty completing self-administered questionnaires (SAQs) when administered on paper or by computers. To address these two challenges simultaneously requires an assessment method that presents questions orally without having a human interviewer present. Previously, researchers had to choose between data biased by the presence of the interviewer or the exclusion of low-literacy participants; however, new technology, in the form of Audio-Computer-Administered Self-Interview (ACASI), allows participants to respond in private while questions are read aloud by the computer. In our research, we have successfully used ACASI with low-literacy participants in sensitive sexual health surveys. In this report, we will summarize participants' experiences in completing ACASI assessments. We will also report regarding convenient data collection using desktop and laptop computers using ACASI in clinical settings. In addition, we will offer step-by-step implementation instructions for ACASI systems while outlining advantages and disadvantages for sexual health surveys.

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FEASIBILITY AND ACCEPTANCE OF PRIMARY CARE TOUCHSCREEN KIOSKS

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Background: Although simple reminders are modestly effective in enhancing preventive care utilization, they are not used widely in primary care settings. This study assessed the feasibility and acceptance of computer kiosks as an alternative screening reminder venue. Methods: Patients from a Family Medicine clinic waiting room completed a colorectal health assessment via a touchscreen computer kiosk, after which they received a tailored printed screening reminder. Kiosk questions assessed colorectal screening status, risks, and barriers and satisfaction with the kiosk. Participants were ≥50 years. Results: Of the 121 patients approached, 83 (69%) agreed to participate. Of those agreeing to participate, 48 (58%) completed the assessment. Of the non-completers, 32 were called to the exam room before finishing and 3 stopped for other reasons. Participants called before assessment completion spent a mean of 75 minutes at the kiosk; assessment completers took an average of 9 minutes (range 6-22 minutes). Participants were a mean of 61 years old (range 50-82), 63% were White, and 48% had a high school education or less. Most (89%) indicated an assessment-related gain in health-related knowledge and 70% agreed that they would discuss assessment-related information with their physician. The assessment was regarded as easy to understand by 81% of participants and 94% preferred the kiosk over a paper assessment. Conclusions: Kiosk users are receptive to the touchscreen technology. Nonetheless, for maximum reach in primary care environments, kiosk assessments must be brief. Further study is necessary to determine the effectiveness of kiosk-oriented patient-activation strategies in boosting preventive care delivery.

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USER ENGAGEMENT WITH AN AUTOMATED TELEPHONE INTERVENTION TO IMPROVE ON-TIME REPEAT MAMMOGRAPHY

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A randomized study was conducted investigating the efficacy of a telephone based, automated intervention called Telephone Linked Care for Mammography (TLC-M) to assist women in obtaining regular screening mammography through provision of barrier-specific advice and motivational and educational information. The sample was 1433 women, ages 50-74, shortly enrolled after they had a screening mammogram at one of two hospital-based mammography facilities. The intervention group received a reminder letter plus TLC-M; the control group received only the reminder letter. Results showed no significant intervention effect. Rescreening was 82% in the control group and 85% in the intervention group. TLC-M usage patterns as well as follow-up assessments indicated that this communication channel did engage women. Calls averaged 11.5 minutes. The system asked women if they wanted to hear information about 7 categories of barriers to mammography. The average per woman was 1.3 categories. Two-thirds or more said the system was interesting; friendly; easy to use; trustworthy; provided information 'right on target'; helped them remember to get a mammogram and understand its benefits; increased their awareness of the importance of mammography and that they would recommend the system to a friend. These results reflect a highly adherent population having a positive experience of the system, but not needing for assistance in getting regular mammograms. TLC-M may have more impact with less adherent women. A second trial examining this question is underway with non-adherent control group women.

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THE PENN-F.O.R.C.E. HELPLINE: REACHING WOMEN AT RISK FOR HEREDITARY BREAST CANCER IN THE COMMUNITY

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1Department of Psychiatry, University of Pennsylvania, Philadelphia, PA. The Abramson Cancer Center and Facing Our Risk of Cancer Empowered (FORCE) joined in December of 2003 to launch The Penn-FORC-E HELpline, a peer-staffed, toll-free information and support service for individuals concerned about their risk of hereditary breast and ovarian cancers (HBOC). The goal of the HELpline is to reach geographically dispersed community-residing individu-

internet health information use. There are conflicting results with one study find-

ing demographic information, perceived health, and Internet health information

use (odds ratio=5.3, p<.05) while very good perceived health was not associated with Internet information use (odds ratio=1.1, p>.05). These results suggest that among women with breast cancer, those with poor/fair perceived health are seeking health information from the Internet about their disease while those with very good/excellent perceived health are less likely to use the Internet as a health information resource.

E. Conclusions: Public health information and treatment interventions promoted through the Internet may better address the needs of women with breast cancer who have poor/fair health status as compared to those with very good/excellent health status.

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KIDNEY RECIPIENTS’ INTEREST IN TRANSPLANTATION HEALTH EDUCATION

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To develop optimal transplantation education, we assessed 304 kidney recipients’ interest in information about living donation, transplant surgery, transplant-related psychological concerns, Internet education, and recipient mentor discussion. After completing a mailed survey (67% response rate), multivariate logistic regression was conducted to identify demographic predictors of education interest.

Recipients were Caucasian (86%) and male (58%), with deceased donor transplants (52%). Recipients with deceased donor transplants wanted information about donor (90%) and recipient (76%) surgeries, recipient psychological concerns (80%), and mentor discussions (70%). Recipients with greater than a high school education wanted more information about donor psychological concerns (OR=2.59, CI=1.31, 5.12), living donation (OR=2.70, CI=1.36, 5.36), and mentor discussions (OR=2.53, CI=1.25, 5.14) than recipients with less education.

Recipients with living donor transplants were interested in education about do-

nor (96%) and recipient (94%) surgeries, and common recipient (89%) and do-

nor (76%) psychological concerns. Recipients who were < 55 years wanted more information about the donor surgery (OR=20.36, CI=2.37, 175.22) and Internet transplant education (OR=18.24, CI=2.07, 160.71) than recipients > 55 years. Patients on dialysis (OR=2.52, CI=1.21, 5.25) were more interested in speaking with mentors than patients not on dialysis.

After explaining the transplant surgery, patients still have fears about transplantation that need to be addressed through discussion and education. Younger and more educated patients want more living donor education.

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WILL BEHAVIORAL MEDICINE RANDOMIZED CLINICAL TRIALS (RCTs) EARN AN A?

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Evidence-based clinical practice guidelines reserve their strongest endorsement for treatments supported by high-quality RCTs. Policy impact is therefore maximized for trials rated high on quality. We coded the analytic quality of all behavioral medicine RCTs (n=74) published between January 2000 and June 2003 in 3 psychology journals Annals of Behavioral Medicine, Health Psychology, Journal of Consulting and Clinical Psychology) and 2 medical journals (Journal of the American Medical Association, New England Journal of Medicine, Cochran-Manuel-Haenszel analysis of 10 dichotomous criteria indicated that RCTs reported in medical journals surpassed those in psychology journals on overall analytic quality, χ2(1) = 25.27, p < .0001. Specifically RCT reports in medical journals more often defined a primary outcome (p < .001), provided a sample size rationale (p < .001), gave the denominator used in analyzing the primary outcome (p < .01), declared using intent-to-treat (ITT) analyses (p < .01), accounted for missing data in analyses (p < .05), and reported both ITT and per protocol analyses (p < .05). Use of the CONSORT reporting guidelines by medi-

cal journals probably explains the higher analytic quality ratings of RCTs re-

ported there. Adoption of CONSORT by psychology journals is expected to im-

prove the quality and impact of the behavioral medicine RCTs they report.

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ELECTRONIC DIARY ASSESSMENT OF UV-RISK BEHAVIOR

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We explored the utility of using electronic diary assessments of UV-risky behavior (e.g., indoor tanning) in 30 undergraduate pairs. Each tanner was paired with a significant other who provided collateral data on the tanner’s UV-risky behavior. Indoor tanning diaries were kept for 12 weeks. Innovative incentives (e.g., payment for daily diary completion, bonuses for perfect weekly completion, contest for participants who complete at least 90% of their diaries, and research assistant incentives) produced low attrition rates (< 5%), low missing data rates (< 1%) and high on-time completion rates (332 out of 360; >95%). Validation of the diary methods was assessed by examining correlates with collateral reports including “focused” reports where the research assistant contacted the significant other and asked them to discretely pay particular close attention to the tanner’s behavior the next day. All tanner-collateral report data were highly correlated (r’s > 0.80). This study demonstrate the validity of this electronic diary method for assessing UV-risk behaviors, and the potential for these methods to become the “gold standard” in the skin cancer prevention field. Such a gold standard should significantly improve the theoretical model building and intervention effectiveness evaluation in a field that relies primarily on global retrospective measurements of UV-risk outcome behaviors.

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INTERACTIVE VOICE RESPONSE TECHNOLOGY APPLIED TO SEXUAL BEHAVIOR SELF-REPORTS: A COMPARISON OF THREE METHODS

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We tested the feasibility and relative performance of the Interactive Voice Response Technology (IVR) in the assessment of sexual behavior self-reports, relative to questionnaire and Timeline Followback (TLFB) methods. The IVR combines computerized interviewing with touch-tone telephone technology and has not been tested in sexual behavior assessments before. The sample consisted of 48 sexually active Hispanic students recruited at the University of Texas at El Paso who reported daily about sexual behaviors and substance use. Thirty-two students (75%, 17 women, 15 men) completed at least 80 days of the 90-day IVR. At follow-up, sexual behaviors were assessed by questionnaire (summary) reports and by TLFB, referring to the same 3-month interval. Because of skewness, data were analyzed with non-parametric statistics (Friedman/Wilcoxon test) and MANOVA with normalized variables. The results indicate general under-reporting in the TLFB and over-reporting of substance use in the questionnaire relative to the daily IVR self-reports. No differences were found in the number of partners reported. Compared to men, women showed a stronger tendency to under-report sexual events in the TLFB. We conclude that the IVR provides superior data quality specifically among women.

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FEASIBILITY OF INTERACTIVE VOICE RESPONSE TECHNOLOGY AMONG PROFOUNDLY ECONOMIC DISADVANTAGED DRINKERS LIVING WITH HIV

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Interactive Voice Response (IVR) technology permits participants to record daily events in a convenient and confidential manner. Unlike many retrospective approaches, IVR allows researchers to closely track transient changes in mood and how these may precede or follow from behaviors and experiences. Although this technology has been implemented in a variety of populations, there is no published research attesting to its feasibility in a population of profoundly economically disadvantaged individuals who are heavy drinkers and lack formal education. A pilot study was conducted among 21 primarily non-Caucasian individuals meeting this description (modal income range less than $10,000 per year) and living with HIV, during which participants completed a 5-7 minute telephone-based survey once a day for three weeks. Five participants were lost during the first week. However, the remaining 16 participants exhibited 90% adherence to the daily protocol (on-time calls each day). Greater frequency and quantity of alcohol consumption was reported via daily reports as compared to baseline retrospective reports. There was also a lower rate of condom use reported by IVR as compared to baseline reports. These findings suggest that the use IVR technology is feasible in the target population and that satisfactory compliance may be obtained. These findings are also consistent with other research which suggests that a daily methodology is a more sensitive measure of important health behaviors such as unsafe sex and alcohol consumption, as compared to retrospective methods.

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INDOOR TANNING FACILITY COMPLIANCE MEASUREMENT VALIDITY

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Adolescents who frequent indoor tanning establishments may be at an increased risk of developing skin cancer and acute adverse reactions. Thus, over one third of the states have passed legislation to increase consumer safety during indoor tanning. In a larger, national study of how well tanning facilities comply with legislation, we plan to assess compliance using confederate phone calls. The aim of the pilot study was to validate this measurement procedure against an actual, face-to-face visit by a confederate. Two compliance variables were assessed: the number of times a person can tan during one week (<3 = compliant) and written parental consent for minors (required = compliant). A sample of 115 tanning facilities in San Diego County was contacted by two adolescent confederates posing as 15-year-old prospective customers. Each facility was contacted by the same confederate twice (approximately a one week interval between contacts) using the same method, with the sequence counterbalanced across the sample. The same facility operator was assessed at the two contacts in all but 11 of the cases. Percent agreements between data collection methods were 71.3% and 76.3% for whether facilities complied with the frequency and parental consent variables, respectively. Overall, compliance with parental consent was significantly higher than compliance with frequency (77.0% vs. 21.4%, p<0.001). These findings suggest that tanning facility compliance can be assessed with good validity using confederate phone calls.

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FROM PAPER TO PIXELS: USING THE INTERNET FOR QUALITY OF LIFE RESEARCH IN HEALTH PSYCHOLOGY AND BEHAVIORAL MEDICINE

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The internet can provide a powerful resource to obtain a broad-based sample for quality of life, questionnaire-based research. The convenience of 24-hour at-home access is important for cancer survivors living with serious illness, patients undergoing time consuming and difficult treatments, and family members with additional time demands. The internet may also offer access to previously difficult to obtain samples that might not easily participate in paper and pencil questionnaire studies (e.g., adolescents and working spouses) but might feel more comfortable with an internet format. To promote this methodology, online resources to facilitate constructing internet research questionnaires are increasingly becoming available and human subjects committees are successfully addressing issues of privacy and anonymity. However, many questions remain pertaining to the comparability of internet and paper/pencil based psychological data. The present study compared questionnaire data from the internet with that from a traditional paper/pencil format in a sample of college students. Three types of questionnaires often used in health psychology and behavioral medicine quality of life research were included: quality of life (SF-36), depression as a measure of mental health (BDI-II) and stable personality (NEO). A within-subjects design counterbalanced order across the internet and paper formats. Results indicated no order effects and no mean differences between paper/pencil and internet formats for any of the measures. However, the two formats yielded various differences when correlations evaluated simple interrelationships among the constructs. The implications of these findings for quality of life research with medical samples are discussed.

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THE ASSOCIATION OF SOCIAL COGNITIVE VARIABLES WITH STUDY OUTCOMES RELATED TO A NEW TREATMENT FOR OBESITY: ACTIVE4LIFE

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Social Cognitive Theory (SCT) is a theoretical model for health behavior change; however, testing variables that comprise this model within treatment studies remains challenging. In a randomized trial, previously validated SCT scales assessed physical activity and nutrition self-efficacy, outcome expectations, social support, and self-regulation. [CJ] Fifty-nine overweight or obese (BMI=31.63), unfit (VO2max=23.06±6.62ml/kg/min), men (n=24) and women (n=35) were randomized to one of two Active4Life treatment conditions (based on SCT) or a wait-list control group. Post-test changes in physical activity self-regulation and nutrition-related self-regulation respectively correlated significantly (Pearson r; p<.001) with changes in weight (r=-.68; r=-.66), waist circumference (r=-.61; r=-.47), intra-abdominal fat (r=-.57; r=-.55), VO2max (r=-.38; r=-.43), steps/day (r=.62; r=.44), and strength (r=.64; r=.66). In addition, change in nutrition self-regulation correlated significantly with nutrition related change at the end of treatment: total fat g/day (r=-.61), saturated fat g/day (r=-.69), fiber g/day (r=.48), and servings of fruits and vegetables/day (r=.64). Similar associations between SCT measures and outcomes were found at three-month follow-up. The results show that interventions based on theoretical constructs can be evaluated for their association with treatment outcomes in order to refine theoretical models for behavior change such as a greater focus on self-regulation.

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STAGE-SPECIFIC SELF-EFFICACY IN BEHAVIOR CHANGE

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Health behavior change is a complex process in which self-efficacy is important. Self-efficacy may be sub-divided into task, preactional and maintenance self-efficacy. Changing behavior consists of different processes, such as goal-setting and planning, behavior adoption, and maintenance. Combining these perspectives (stage-specific self-efficacy, different stages of behavior change, and different tasks to be managed during behavior change) a stage-specific impact of the different subtypes of self-efficacy should be found.

Hypotheses: Individuals in the goal-setting process (non-intentional) have high correlations of preactional and maintenance self-efficacy with subsequent intention. Individuals in the planning process (intentional) have high intercorrelations of task and maintenance self-efficacy with subsequent intention, planning and behavior. In individuals who have been active before (actional), task and maintenance self-efficacy correlate with subsequent planning and behavior.

584 orthopedic rehabilitation patients (18-80 years, 60% female) were enrolled in a longitudinal study. Stage-specific self-efficacy beliefs were measured at the beginning (t1) and the end of the rehabilitation. Intention was assessed two weeks, planning four weeks, and behavior six months later. Stage was measured at t1. Non-intentional individuals showed significant interrelations of preactional and maintenance self-efficacy for subsequent intention (r=.28/20). Intentional persons had significant intercorrelations of task self-efficacy with intention and behavior (r=.21/.14). In actional individuals, task self-efficacy correlated significantly with intention, planning and behavior (r=.30/28.21).

The hypotheses could be partially confirmed. The differentiation between stage-specific self-efficacy beliefs is fruitful and related to corresponding processes during behavior change. Depending on the stage a person is in, the stage-specific self-efficacy should be supported and thereby, changing behavior might be improved.
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TESTING HIGHER-ORDER MEASUREMENT STRUCTURES OF THE THEORY OF PLANNED BEHAVIOR AND EXERCISE
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The theory of planned behavior (TPB) is a popular framework for understanding the informational and motivational influences of health behavior. One tenet of this model that has not been examined is the proposition that direct measures of TPB component constructs are organized through higher-order structures. The purpose of this paper was to test this higher-order conceptualization in comparison to a multidimensional TPB model with simple bivariate correlations between constructs. Participants (N = 268) completed direct measures of the TPB and a two-week follow-up of exercise behavior. Tests were conducted using structural equation modeling. The results generally supported multidimensional correlated TPB constructs over higher-order structures. Specifically, direct measures of attitude (i.e., affective attitude, instrumental attitude) and subjective norm (i.e., injunctive norm, descriptive norm) had better psychometric properties when considered multidimensional (composite reliability > .70; average variance extracted > .50). Psychometric indices suggested that measurement of the two-factor higher-order model was not satisfactory for attitude (composite reliability = .46; average variance extracted = .34) and subjective norm (composite reliability = .67; average variance extracted = .49). Perceived behavioral control (i.e., self-efficacy, controllability), however, had estimation problems for both the multidimensional and the higher-order model. It was concluded that aggregation of TPB components is not warranted and that the perceived behavioral control components may possess a structure more complex that simple multidimensionality or a super-order higher-order construct.

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CAN PAST PHYSICAL ACTIVITY ACT AS A REASONABLE PROXY MEASURE OF FUTURE PHYSICAL ACTIVITY? AN EVALUATION USING SOCIAL COGNITION MODELS
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The standard methodological approach for evaluating social cognitive theories when predicting physical activity behavior is the passive prospective/longitudinal survey design. Although this design is logical, a cross-sectional design may be a cost-effective alternative if the relationships between social cognitive constructs and physical activity are relatively stable. The purpose of this study was to evaluate the utility of a concurrent measure of physical activity used in a cross-sectional design in comparison to the standard prospective measure. This study included two six-month prediction time-periods, between 1997 and 1998, for the purpose of analysis replication, and the theory of planned behavior, the transtheoretical model, protection motivation theory, and social cognitive theory as the models of interest in a population sample (N=703). Results showed trivial (60% of tests; q < .10) to small (31% of tests; q = .11-.18) differences in the correlations between social cognitive constructs and vigorous physical activity occurring when using a cross-sectional or prospective design. The cross-sectional design estimated slightly larger coefficients than the prospective design. It appears that a measure of concurrent physical activity included in a cross-sectional design can act as a reasonable proxy measure of future behavior measured in a passive prospective/longitudinal design. These findings support the use of cross-sectional designs when researchers seek a standard correlational investigation of physical activity and social cognitive constructs with the possibility that coefficients may be slightly biased upwards.

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STAGE OF CHANGE, DECISIONAL BALANCE, SELF-EFFICACY, SKILLS, AND RELAPSE MEASURES FOR ASSESSING A PROACTIVE HEALTHY LIFESTYLE
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Tailored interventions targeting multiple behaviors simultaneously can potentially have an impact on health at a reduced cost. However, the assessment burden on the individual can be a barrier to implementation. An alternative approach to multiple behavior change intervention is the integration of behaviors. This study developed five measures for the integrated construct of a Proactive Healthy Lifestyle: Stage of Change, Decisional Balance, Self-Efficacy, Behavioral Skills, and Relapse Risk. A Proactive Healthy Lifestyle is defined as a lifestyle that includes eating a diet low in fat and high in fruits and vegetables, getting at least 30 minutes of physical activity on most days, and not smoking. After developing an initial item pool for each measure and assessing face validity, the measures were administered to a sample of 418 participants from two universities. Half of the sample (N=209) was used for exploratory measurement development and half (N=209) to confirm measurement structure, resulting in a 10-item Decisional Balance Measure (α=.82 for Pros and α=.68 for Cons), a 12-item Self-efficacy measure (four scales; α=.70 to .80), a 4-item Behavioral Skills measure (α=.80), and a 4-item Relapse Risk measure (α=.83). Three alternative staging algorithms were compared. The relation between stage and the other four measures confirmed the predicted relationship from the Transtheoretical Model. These brief measures can be used in the development of tailored intervention to intervene on multiple risk factors simultaneously.

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MEASURING THE PROCESSES OF CHANGE FOR A PROACTIVE HEALTHY LIFESTYLE
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Tailored interventions targeting multiple behaviors simultaneously have the potential to have an impact on health at a reduced cost. However, the assessment burden on the individual can be a barrier to implementation. An alternative approach to multiple behavior change intervention is the integration of behaviors. This study developed a measure of the 10 Processes of Change from the Transtheoretical Model for the integrated construct of a Proactive Healthy Lifestyle. A Proactive Healthy Lifestyle is defined as a lifestyle that includes eating a diet low in fat and high in fruits and vegetables, getting at least 30 minutes of physical activity on most days, and not smoking. After developing an initial item pool and assessing face validity, the measure was administered to a sample of 418 participants from two universities. Half of the sample (N = 209) was used for measurement development and half (N = 209) to validate the measure resulting in a 30-item measure of the 5 Experiential and 5 Behavioral Process of Change. The internal consistency (Coefficient Alpha) of the 10 subscales ranged from .65 to .86. The use of processes of change increased between the Pre-contemplation and Maintenance stages for each of the ten subscales. This brief measure can be used in the development of tailored intervention based on the Transtheoretical Model to intervene on multiple risk factors simultaneously.

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REPLICATION OF SUBTYPES FOR SMOKING CESSATION WITHIN THE PREPARATION STAGE OF CHANGE

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Smoking cessation interventions tailored to specific characteristic of participants have the promise of providing better results than universal approaches. The Transtheoretical model has been successfully used to tailor interventions based on the stages of change. Recent cluster analyses performed within the stages have suggested the existence of distinct cluster subtypes. Such subtypes would permit more detailed tailoring of interventions focusing on the specific profiles of the clusters. This study attempts to replicate cluster subtypes within the Preparation stage of change in a secondary analysis of data from a sample of current smokers (N=3967). The 682 participants in the Preparation stage were divided into two random samples of approximately 340. The cluster analyses were performed using the Pros, Cons and Situational Temptations. Interpretability of the pattern, pseudo F test, and dendograms were used to determine the number of clusters. Four distinct cluster subtypes were found and replicated across samples (Progressing, Early Preparation, Classic Preparation and Disengaged). The clusters were externally validated using the ten processes of change and two smoking behavior variables (cigarettes per day and time before first morning cigarette). Statistically significant multivariate effects were found for the ten processes of change (p<.001) in the samples. The cluster groups differed on 7 or more of the processes in each sample. Significant multivariate effects were also found for the smoking behavior variables in the samples (p<.001). The cluster patterns closely replicate earlier findings and provide evidence for the existence of clusters subtypes within the Preparation stage of change.

Study supported by NCI Grants 71356, Grants CA 50087 and CA 27821
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VALIDATION OF DECISIONAL BALANCE AND SELF-EFFICACY MEASURES FOR EXERCISE IN OLDER ADULTS

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The goal of the present study was to validate decisional balance (DB) and self-efficacy (SE) measures for physical activity in older adults. A pilot study of 400 older adults provided data for preliminary exploratory analyses of the initial item pools. These analyses suggested two factors for DB consisting of 10 items (5 Pros and 5 Cons) and one 6-item factor for SE. The DB and SE factor structures were replicated using structural equation modeling and confirmatory factor analysis using baseline data from a large community-based intervention designed to increase exercise and fruit and vegetable intake in older adults (N=1276, female=69.6%, Caucasian=77.4%, mean age=75.4, SD=6.7). For DB, the two-factor structure was confirmed (AASR=.02, CFI=.98). The two dimensions were independent and demonstrated good internal consistency (a=.85 for Pros and .55 for Cons). The single factor structure of the SE scale was also confirmed (AASR=.02, CFI=.95), and demonstrated good internal consistency (a=.79). External validity analyses (ANOVA’s) showed that both DB and SE varied across the stages of change as predicted by the transtheoretical model, with Pros and Cons showing a crossover profile and SE a linear increase across the stages. These results replicate previously established structures of decisional balance and self-efficacy and indicate the measures’ consistency and applicability to older adults. High-quality population based interventions can lead to increased levels of physical activity among the elderly. The use of valid and reliable measures is essential to assess intervention impact.

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TESTING THE THEORY OF REASONED ACTION (TRA) AS A MODEL OF INTENTION TO SEEK PROSTATE CANCER INFORMATION FROM PHYSICIANS AMONG AFRICAN-AMERICAN MEN IN ALABAMA

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While information-seeking is an important aspect of prostate cancer control, the motivational determinants of this health behavior are poorly understood. The objectives of this research were (1) to evaluate newly developed theory-based measures for intention to seek prostate cancer information from physicians, and (2) to assess their reliability and construct validity. Three hundred African-American men (<40 years) in Alabama were surveyed via random digit dialing. The results of structural equation modeling indicated that a model where three variables represented attitudes, three variables represented behavioral beliefs, and three variables represented normative beliefs fit the data best. All fit indices for this model were acceptable (GFI = .96, AGFI = .93, RMR = .04, CFI = .98, NFI = .93, and χ² = 49.55, df = 36, p < .001). Cronbach’s alpha coefficients for the attitude, behavioral belief, and normative belief measures were .59, .61, and .80, respectively. All a priori relationships, except the one between subjective norm and behavioral intention were confirmed. The results from this research suggest that the TRA has utility as a model of prostate cancer information seeking from physicians among African-American men. The results further suggest that interventions to influence African-American men’s intentions to obtain prostate cancer information from physicians should focus on their attitudes toward the behavior.

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HEALTH BEHAVIOR IN PREGNANT MEXICAN IMMIGRANTS

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Despite social disadvantage and lack of prenatal care, the rate of LBW in Mexican immigrants is similar to non-Hispanic whites. As immigrant women become more acculturated in the US, high-risk behaviors are embraced and protective cultural practices diminish, weakening their perinatal advantage. The purpose was to develop a culturally valid/relatable instrument—the Prenatal Health Inventory of Behavior-Spanish—that measures health behavior in pregnant Mexican immigrants. Phase I consisted of translating into Spanish, testing for cultural validity—clarity, understanding, scales, and cultural sensitivity—of the PHI-B; and back translation. Phase II (correlational design) consists of estimating reliability (item analysis, test-retest, coefficient alpha) and validity (convergent-general health, concurrent-depression, divergent-social desirability) of the PHI-B-Spanish. Examination of the relationship between demographic factors, acculturation, health behavior and perceived social support are being explored. Subjects are pregnant women (12 to 32 weeks gestation, born in Mexico/living in the US, understand/Speak Spanish.) Two focus groups consisted of 13 (n=6, n=7) pregnant immigrants. The second phase consists of recruiting 200 subjects at a prenatal clinic for underserved women. Certified translators translated the PHI-B and focus groups analyzed the new inventory. The Marlowe-Crowne Social Desirability Scale was translated/validated in Spanish. Confusing statements were clarified; wording was simplified to decrease the readability level and to reflect unique Mexican Spanish language. The PHI-B-Spanish reflected Mexican immigrant women’s similar (to non-Hispanic whites) and distinctive health behavior during pregnancy. Social support was reported to be a central part of promoting health behavior during pregnancy.

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LOW-INCOME AFRICAN AMERICAN MOTHERS AS EXPERTS: A RESEARCH METHODOLOGY
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Assessment of mealtime feeding behaviors in toddlers is particularly needed due to the dramatic increase in the incidence of childhood overweight, especially within the African American population, and the critical nature of the toddlerhood years during which food preferences and mealtime habits are established. There is a lack of availability of mealtime feeding measures for use with low-income African American families. Such culturally sensitive measures are critical in attaining meaningful data and developing subsequent interventions aimed at supporting the establishment of healthy feeding behaviors. The purposes of this study were twofold, to: (1) provide an overview of the mother as “expert” using focus groups, and (2) illustrate an example of how “mothers as experts” can be effectively used for instrument refinement. A purposive sample of 12 low-income, African American mothers of toddlers participated in a “mother as expert” group session to critically evaluate an instrument that measures toddler-parent mealtime behaviors. Three mothers and one member of the research team comprised each of the four groups. An African American female facilitator explained the goal to be achieved and provided instructions. The aim of the discussions was to critically evaluate each item from the questionnaire, reviewing each of the items for clarity and cultural appropriateness. Five rounds of small and large group discussion occurred. Large group consensus was achieved for the most appropriate wording of each item. Researchers and clinicians often seek to determine if their measures are culturally sensitive. Use of focus groups is one means of working with small samples and limited budget in order to obtain this information.
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D-55 Citation Poster
CROSS-CULTURAL VALIDATION OF SHORT-FORM MEASURES OF DECISIONAL BALANCE AND SITUATIONAL TEMPTATIONS FOR PROBLEM DRINKING
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The validity, reliability and generalizability of short-form measures of decisional balance (DB) and situational temptations (TEMP) for high risk drinking are presented. Valid and reliable measures that minimize demand and respondent burden are necessary for behavioral epidemiologic surveillance, program development and evaluation research. Data are from two representative college student samples; 1,638 randomly selected from a large US public university, and 1,480 from a large, urban New Zealand university. Results present confirmatory factor analysis and construct validity for a 12-item DB scale, and of an 8-item situational Temptations scale with four related dimensions (Negative Affect, Peer Pressure, Social Approval, and Positive Subscales). Results confirm the structural invariance of both scales in both countries: the DB scale (CFI = .99; NFI = .95) and the TEMP scale (US: CFI = .97; NZ: CFI = .97), demonstrating excellent internal consistency and construct validity (6-item PROS: US Ï... = .83; NZ Ï... = .84; 6-item CONS: US: Ï... = .74; NZ: Ï... = .80). Results also demonstrate the hierarchical structure of the TEMP scale with four dimensions (8-item TEMP: US Ï... = .84; NZ Ï... = .85; 2-item TEMP Subscale range US: Ï... = .71 to .83; NZ: Ï... = .73 to .83). Construct validity analyses confirmed expected predictions across a variety of related measures, including alcohol use and problems. In sum, strong evidence demonstrating the replication of the structural and psychometric properties of two short-form versions of DB and TEMP measures in large representative college student samples from two countries.
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D-56 Meritorious Student Poster
EVALUATION OF THE EATING DISORDERS INVENTORY IN A HISPANIC POPULATION
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The Eating Disorders Inventory (EDI) is a self-report questionnaire that measures psychological and behavioral characteristics commonly found in eating disorders. The EDI is an extensively used measure that assesses body disturbance and tendencies towards eating disorders. However, previous research has found that Hispanics have different perspectives of body image and little research has investigated the utility of the EDI among Hispanics. The purpose of the current study was to determine whether the hypothesized factor structure of EDI was supported in a sample of young Hispanic adults. Participants were 351 Hispanic men and women living on the U.S./Mexico border. The participants had a median age of 19 and had an average Body Mass Index (BMI) of 23.91 (SD = 4.91). Additionally, the participants had a mean acculturation rating of 3.25 (SD = .93). Cronbach alphas were computed for the EDI, the total scale had an alpha value of .93 and the eight subscales ranged from .68–.90. An independent clusters factor model, using maximum likelihood estimation was estimated. The established eight-factor structure for the 64 items of the EDI had an acceptable model fit (chi-square to degrees of freedom ratio of 2.32, RMSEA = .06 and Tanaka Goodness of Fit = .91). These results indicate that the EDI measure may be used to assess eating disorders among young Hispanic adults living on the U.S./Mexico border. Future research should seek to establish the eight-factor structure of the EDI in larger samples and assess gender variations for the EDI.
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DIABETES PROBLEM-SOLVING SCALE (DPSS) DEVELOPMENT
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The relationship of problem solving to health behaviors and glycemic control (HbA1c) is not well-established, especially in African Americans. One limitation is need for a theoretically-driven, empirically-tested measure of problem solving in disease self-management. A scale was developed based on a problem-solving model of chronic disease self-management derived from cognitive psychology, educational psychology, and social problem-solving theory. Scale items were generated from diabetes focus groups. After expert review, items were grouped into subscales consistent with the model: Positive Motivation/orientation (PMO), Negative Motivation/orientation (NMO), Effective Problem-Solving (EPS), Ineffective Problem Solving (IPS), Positive Transfer of Past experience (PT), Negative Transfer of Past Experience (NTR) The Diabetes Problem-Solving Scale (DPSS) was administered to 64 African Americans with type 2 diabetes (mean age=57, 73% female). In preliminary analyses of the 30-item DPSS, positive problem-solving subscales (PMO, EPS, PTr) were intercorrelated (r=.56,.61, all p<.0001), and negative problem-solving subscales (NMO, IPS, NTR) were intercorrelated (r=.69,.80, all p<.0001). Consistent with the theorized construct independence, negative subscales were weakly correlated with positive subscales (r=.08,.16, all p>.20). In regression models, higher total DPSS (indicating better problem solving) was associated with better medication adherence (r=.16,.p=.01), HbA1c (r=-.73,.p=.03), and more frequent blood glucose self-monitoring (odds ratio=4.5,.p=.004). Total DPSS scores above the 4th quartile were associated with optimal mean glycemic control (HbA1c<7.0%). Lower medication adherence was associated with better medication adherence (r=.16,.p=.01), HbA1c (r=.73,.p=.03), and more frequent blood glucose self-monitoring (odds ratio=4.5,.p=.004). Total DPSS scores above the 4th quartile were associated with optimal mean glycemic control (HbA1c<7.0%). Lower medication adherence was associated with better medication adherence (r=.16,.p=.01), HbA1c (r=.73,.p=.03), and more frequent blood glucose self-monitoring (odds ratio=4.5,.p=.004). Total DPSS scores above the 4th quartile were associated with optimal mean glycemic control (HbA1c<7.0%). Lower medication adherence was associated with better medication adherence (r=.16,.p=.01), HbA1c (r=.73,.p=.03), and more frequent blood glucose self-monitoring (odds ratio=4.5,.p=.004). Total DPSS scores above the 4th quartile were associated with optimal mean glycemic control (HbA1c<7.0%). Lower medication adherence was associated with better medication adherence (r=.16,.p=.01), HbA1c (r=.73,.p=.03), and more frequent blood glucose self-monitoring (odds ratio=4.5,.p=.004). Total DPSS scores above the 4th quartile were associated with optimal mean glycemic control (HbA1c<7.0%). Lower medication adherence was associated with better medication adherence (r=.16,.p=.01), HbA1c (r=.73,.p=.03), and more frequent blood glucose self-monitoring (odds ratio=4.5,.p=.004). Total DPSS scores above the 4th quartile were associated with optimal mean glycemic control (HbA1c<7.0%). Lower medication adherence was associated with better medication adherence (r=.16,.p=.01), HbA1c (r=.73,.p=.03), and more frequent blood glucose self-monitoring (odds ratio=4.5,.p=.004). Total DPSS scores above the 4th quartile were associated with optimal mean glycemic control (HbA1c<7.0%). Lower medication adherence was associated with better medication adherence (r=.16,.p=.01), HbA1c (r=.73,.p=.03), and more frequent blood glucose self-monitoring (odds ratio=4.5,.p=.004). Total DPSS scores above the 4th quartile were associated with optimal mean glycemic control (HbA1c<7.0%). Lower medication adherence was associated with better medication adherence (r=.16,.p=.01), HbA1c (r=.73,.p=.03), and more frequent blood glucose self-monitoring (odds ratio=4.5,.p=.004). Total DPSS scores above the 4th quartile were associated with optimal mean glycemic control (HbA1c<7.0%). Lower medication adherence was associated with better medication adherence (r=.16,.p=.01), HbA1c (r=.73,.p=.03), and more frequent blood glucose self-monitoring (odds ratio=4.5,.p=.004).
D-60 Citation Poster

VALIDATION OF AN OBJECTIVE MEASURE OF SUNSCREEN USE

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Sunscreen can prevent sunburn, non-melanocytic and melanocytic skin cancers when used properly. Sunscreens have become a popular first choice for people who are trying to reduce their ultraviolet (UV) exposure. Measurement of sunscreen use has predominantly relied on self-report which has inherent biases. Therefore, the purpose of this study was to determine if a sunscreen swabbing technique could reliably detect the presence of sunscreen in controlled (60 office workers) and field setting (88 beach visitors). Within the office setting, various sunscreens were applied using a recommended dose (2mg/cm²). The participants’ skin was wiped with an alcohol swab at 20 minutes, then hourly until 6 hours post-application. At the beach, participants were swabbed on the leg, arm, and face upon arrival and departure, and were asked about sunscreen use on each of the sites. A spectrophotometer was used to measure absorbance readings from each swab across the UVA-B spectrum (280-400nm). Overall, samples taken from office workers demonstrated the procedure to be reliable (Kappa=0.96) with excellent levels of sensitivity (99.8%) and specificity (94.4%). Repeated measures ANOVA across wavelength revealed significant variation between sunscreens below SPF 15 (95%CI=0.199-0.207), SPF 15 (95%CI=0.218-0.230), and greater than SPF 15 (95%CI=0.282-0.290). The beach study confirmed that this procedure is reliable (Kappa=0.61) and appropriate for use in outdoor population-based studies. This brief, non-invasive procedure may well prove to be a gold standard for validating sunscreen use.

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D-59

TEST-RETEST RELIABILITY OF A TEEN INDOOR TANNING SURVEY

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Social support has been linked to important physical and psychological health outcomes. Less is known, however, about the role of diabetes-specific social support. Research in this area requires reliable and valid measures. The Diabetes Care Profile includes three subscales measuring diabetes-specific social support but evidence of their reliability is scarce. The present study, therefore, examined the test-retest and internal consistency reliability of these measures. Sixty-three patients with Type 2 diabetes participated (mean age = 52 years). The sample was predominantly Caucasian (77.8%) and female (57.1%). Participants completed the social support subscales and were restested on average, 6.5 months later. An intervention was delivered to 31 of the participants but had no effect on the reliability of the measures. Therefore, data presented are collapsed across groups. The global support subscale yielded a test-retest correlation of .48, p < .05. The subscale assessing social support received (GET) yielded a test-retest correlation of .48, p < .05. The subscale assessing desired social support (WANT) was subtracted from the get scale to yield a third index. This index yielded a test-retest correlation of .36, p < .05. The global scale had an alpha of .52 at pretest and .69 at post-test. The get scale yielded pretest and post-test values of .92 and .89, respectively. The difference (get - want) scale yielded a pretest alpha of .84 and a post-test alpha of .85. These findings indicate that these commonly used scales have adequate test-retest reliability over 6.5 months, and that most have relatively good internal consistency.

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RELIABILITY OF DIABETES-SPECIFIC SOCIAL SUPPORT SCALES

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The reliability of commonly used scales has adequate test-retest reliability over 6.5 months, and most have relatively good internal consistency.

D-56 Citation Poster

RELATIONSHIP OF PERCEIVED COGNITIVE PROBLEMS TO COGNITIVE PERFORMANCE IN BONE MARROW TRANSPLANT RECIPIENTS

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Reports of cognitive problems are common among cancer patients, particularly among those who receive high dose chemotherapy as part of bone marrow transplantation (BMT). The relationship of these reports to objective performance on measures of cognitive ability is unclear. This study examined the relationship of cognitive performance to scores on the Functional Assessment of Cancer Therapy Cognitive Scale (FACT-Cog), a newly developed self-report measure of cognitive complaints. The FACT-Cog consists of a total score and scores for cognitive, interference of functioning, and quality of life (QOL) domains. Six-months or twelve-months following BMT participants completed the FACT-Cog and tests assessing memory (e.g., Visual Reproduction), executive functioning (e.g., Stroop), motor performance (Grooved Pegboard), and attention (Continuous Performance Task-II; CPT-II). Participants (42 men, 40 women) averaged 53 years old, 14 years of education and an estimated IQ of 99. Relationship of FACT-Cog scores to impaired cognitive performance (i.e., scores<1.5 SD below published norms) was mixed. The impulsivity subscale of the CPT-II was significantly correlated with the FACT-Cog total score and all three domain scores (r = .23 to .33, p<.05). The vigilance subscale was significantly correlated with the FACT-Cog total score (r = .22, p<.05) and QOL domain score (r = .29, p<.01). The FACT-Cog had small to medium correlations with memory and motor domain measures (r = .15 to .20, 08<p<.20), suggesting that a larger sample may have yielded additional significant findings. Findings indicate that cognitive complaints in BMT recipients partially reflect impairments in cognitive performance, with deficits in attention demonstrating the strongest relationship.

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PSYCHOMETRIC PROPERTIES OF EXERCISE SELF-EFFICACY SCALES FOR BREAST CANCER PATIENTS
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Self-efficacy scales incorporating the unique physical activity barriers experienced by breast cancer patients during treatment are needed. Our study proposed to test the psychometric properties of both a barrier (nine items) and task (four items) exercise self-efficacy scale designed for breast cancer patients during treatment. Eighty-six female breast cancer patients recruited from a medical oncologist’s office completed both scales once and 46 repeated the scales two weeks later. The majority were Caucasian (82 (95%)) with 22 (26%) receiving chemotherapy, 55 (64%) hormonal therapy alone, and 5 (5%) radiation/other. For the barrier self-efficacy scale, principal components analysis yielded one factor accounting for 74.5% of the variance. Cronbach’s coefficient alpha for the nine-item scale was 0.96. The test-retest reliability analysis using Pearson correlation coefficients for the nine individual items ranged from 0.69 to 0.88 (median=0.76) (p<0.0001 for all). The test-retest reliability for the mean total scale (i.e., mean of the nine items) was 0.89 (p<0.0001). For the task self-efficacy scale, Cronbach’s coefficient alpha was 0.89. The test-retest reliability analysis using Pearson correlation coefficients for the four individual items ranged from 0.78 to 0.80 (p<0.0001 for all). The test-retest reliability for the mean total score (i.e., mean of the four items) was 0.83 (p<0.0001). Both the barrier and task self-efficacy scale demonstrated very good internal consistency and test-retest reliability. Future studies are needed to assess potential differences among breast cancer patients based on disease stage/treatment and association between these scales and physical activity behavior.
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DEVELOPMENT OF A CANCER PAIN INVENTORY
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While attitudes toward pain in cancer patients have been studied, the research has been based on measures derived from chronic benign pain patients. Using information derived from interviews with cancer patients and oncology providers regarding beliefs about pain, we developed a self-report measure, the Cancer Pain Inventory (CPI). A preliminary, 8-item version of the CPI was administered to a diverse group of 208 cancer patients, along with several well-validated inventories – Brief Pain Inventory, Survey of Pain Attitudes, Pain Disability Index, and Center for Epidemiologic Studies-Depression scale. Factor analysis of CPI items revealed four dimensions related to cancer pain: catastrophizing, pain-related disability, confidence in coping, and pain communication. Subscales composed of items loading on each factor demonstrated adequate internal reliability. Correlations (all p<.05) between subscales and other measures supported the construct validity of each subscale: 1) catastrophizing correlated positively with pain severity, pain-related disability, and depression; 2) pain-related disability correlated positively with other measures of disability and pain severity, and negatively with expectations for medical cure; 3) confidence in coping correlated positively with perceived benefit from pain medication, expectations for control of pain, and expectations for cure, but negatively with depression; 4) pain communication correlated positively with measures of interference in interpersonal relations, expectation for medical solutions, and depression, but negatively with expectations for cure. These results extend previous research examining attitudes toward pain in patients with cancer and provide preliminary support for the CPI as a measure of attitudes toward and adjustment to malignant pain.
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TEST-RETEST RELIABILITY OF SELF-REPORTED SEXUAL BEHAVIOR, SEXUAL ORIENTATION, AND PSYCHOSEXUAL DEVELOPMENT AMONG GAY, LESBIAN, AND BISEXUAL YOUTHS
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Critical to research on sexual health is the reliable assessment of self-reported sexual information. Yet few have undertaken studies to evaluate the reliability of reported sexual information; and none have been conducted among gay, lesbian, and bisexual (GLB) youths who are at particular risk for poor sexual health. Test-retest reliability of self-reported sexual behaviors, sexual orientation, sexual identity, and psychosexual developmental milestones was examined among an ethnically diverse sample of 64 self-identified GLB youths (ages 14 - 21; 45% female). Two face-to-face interviews were conducted approximately two weeks apart using the Sexual Risk Behavior Assessment Schedule for Homosexual Youths (SERBAS-Y-HM). Overall, the intraclass correlations were substantial for lifetime sexual behaviors (M = .89), sexual behavior in the past 3 months (M = .96), unprotected sexual behavior in the past 3 months (M = .93), sexual identity (κ = .89), sexual orientation (M = .82), and ages of various psychosexual developmental milestones (M = .77). A small number of gender differences emerged, with lower reliability among female youths in the lifetime number of same-sex partners and among male youths for number of anal sex episodes while using drugs and alcohol in the past 3 months. The overall findings suggest that a wide range of sexual information can be reliably assessed among GLB youths.
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MEASURING PERCEIVED COMPETENCE IN SELF-MANAGING ONE’S HIV INFECTION
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This presentation will introduce and give psychometric information on a new 8-item measure called the Perceived Medical Condition Self-Management Scale. It is designed to be a condition-specific version of the Perceived Health Competence Scale (Smith, Wallston, & Smith, 1995), and can be made condition-specific by assigning the name of the condition (e.g., arthritis; diabetes; cancer) into each item. The data for this presentation are from baseline assessments of 85 persons with HIV infection. Seventy percent of the participants were male, 60% black, 48% heterosexual, and over 90% reported contracting HIV through sexual contact. Most were low-income (< $10,000/year), and only 30% had a diagnosis of AIDS. The alpha reliability (Cronbach’s α = .80) and test-retest stability (r = .72 over 2 months) of this new measure were acceptable. There were no correlations with age or time since diagnosis with HIV. Males did not score differently than females, nor were there differences between blacks and whites. Construct validity was demonstrated by positive correlations with measures of generalized perceived competence, dispositional optimism, positive affect, and health-related quality of life, and by negative correlations with negative affect and perceived stress. By the time of this presentation, additional data will be available showing the predictive validity of this measure in regard to changes in HIV symptomatology, as well as the sensitivity of this measure to a psychosocial intervention. The Perceived Medical-Condition Self-Management Scale is easy to administer, and represents a significant new measure for investigators studying management of chronic disease.
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THE ACCURACY OF SELF-REPORTED HIV RISK BEHAVIOR

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Higher rates of sexual risk behaviors have been documented among at-risk youth. Increasing incidence of STI’s among youth raises additional concerns about their sexual health. However, effective interventions cannot be designed if accurate reports of behavior are not available. This study evaluated self-reported HIV risk behavior among high risk youth, and compared methods designed to increase the accuracy of these reports.

159 youth ages 14-22 completed a measure assessing HIV risk behavior using either an audio-CASI or paper survey. Further, half of the participants completed these measures while attached to a physiological monitoring device, which they were told could detect true reports of their lifestyle practices.

48% of youth reported having engaged in vaginal sex, and 48% engaged in receptive anal sex. Participants averaged 7.0 vaginal and 13.2 receptive anal sex partners in their lifetime. 36% and 32% reported consistent condom use during vaginal and receptive anal sex, respectively. 14% reported a STI history, the most common being chlamydia. 27% reported engaging in survival sex, and 6% reported shared needle use.

Findings suggest that these at-risk youth are engaging in rates of HIV risk behavior that surpass the general population of youth, and point to the need for more intense HIV interventions with at-risk populations. Forthcoming findings regarding data collection methods may contribute to methodological research on maximizing the accuracy of self-reported data.

Research supported by a grant awarded to CBEECH by the Universitywide AIDS Research Program (grant # IS02-CBEECH-711).

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VALIDATION OF PROCESSES OF CHANGE MEASURES FOR PHYSICAL ACTIVITY IN OLDER ADULTS

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The goal of the present study was to validate the Processes of Change (POC) measures for physical activity in older adults. A pilot study of 400 older adults provided data for preliminary exploratory analyses of the initial item pools. These analyses suggested 10 correlated POC subscales. Baseline data from a large community-based intervention designed to increase exercise and fruit and vegetable intake in older adults (N = 1276, women=69.6%, Caucasians=77.4%, mean age=75.4, SD=6.7) were used to conduct confirmatory measurement models for the POC. Additionally, hierarchical factor structures were tested and external validation with Stage X Process analyses were conducted. Among several alternative plausible measurement models, a ten-factor, 30-item correlated factor solution showed the best fit (CFI=.94, AASR=.03, RMSEA=.04), agreed well with theoretical expectations, and showed adequate internal consistency for all scales (Alpha=.54 to .82). Two higher order models, a two-factor and a one-factor hierarchical model, were tested to determine the secondary factor structure. The one-factor model demonstrated the best fit (AASR=.04, CFI=.90, RMSEA=.05). A MANOVA showed that the POC varied across the stages of change (Wilk’s l=.542, F(40, 4210.85)=18.43, p<.001), with mainly linear increases across the Stages (eta-squared=.02-.35). Overall, these results replicate previously established factor structure of POC and indicate the measures’ consistency and applicability to older adults. The use of valid and reliable measures is essential for the development of computer tailored interventions as well as for assessing intervention impact.

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DOES THE PHYSICAL SELF-EFFICACY SCALE ASSESS SELF-EFFICACY OR SELF-ESTEEM?

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The current study was designed to address whether the Perceived Physical Ability (PPA) subscale of the Physical Self-Efficacy Scale (PSES; Ryckman, Robbins, Thornton, & Cantrell, 1982), measures self-efficacy or self-esteeem. Secondary analyses of data sets from four previously reported studies were conducted to examine the extent to which the PPA overlaps with multidimensional self-efficacy measures. Confirmatory factor analysis supported the unidimensional factor structure of the PPA, and multitrait-multimethod analyses were employed to establish convergent and discriminant validity of the PPA and task-specific efficacy measures with self-efficacy measures. It was found that there was substantial correspondence between the PPA and measures of physical self-esteeem. These relationships were statistically greater than the correlations between the task-specific measures of self-efficacy and physical self-esteeem. Furthermore, the correlations between the PPA and task-specific efficacy measures were weaker than the correlations among the task-specific efficacy measures. Additionally, task-specific efficacy measures demonstrated stronger associations with behavioral outcomes such as physical performance and exercise participation than did the PPA. These results support the position that the PPA may be more reflective of self-esteem than self-efficacy. Examination of construct validity of self-concept measures is an ongoing process. It is recommended that if the PPA is to be used for research purposes, it may have greater utility as a measure of physical self-esteem rather than self-efficacy.

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EFFECTS OF DIFFERENT COMBINATIONS OF INTENSITY CATEGORIES ON SELF-REPORTED EXERCISE

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Self-reports of exercise are used extensively in behavioral research but are strongly influenced by many characteristics. In the present study, we examined the effects of providing different combinations of intensity categories on the survey. Participants were 432 undergraduates randomly assigned to one of six combinations of exercise intensities: (a) at least mild (i.e., asking for exercise of at least mild intensity using only a mild intensity category), (b) at least moderate (i.e., asking for exercise of at least moderate intensity using only a moderate intensity category), (c) strenuous (i.e., asking for exercise of strenuous intensity using a strenuous intensity category), (d) mild and at least moderate [MM], (e) moderate and strenuous [MS], and (f) mild, moderate, and strenuous [MMS]. Analyses of variance (ANOVA) yielded no significant differences for mild or strenuous minutes, however, moderate minutes was significant [F(3,246)=5.42, p=.001; eta2=.062]. Tukey post hoc tests showed that the at least moderate condition reported significantly more moderate minutes than the MM condition (p=.04; df=41). These data provide support for a “bump up” hypothesis for moderate intensity exercise but not for strenuous intensity exercise. That is, if a mild or light intensity category is not available, respondents appear to “bump up” some of their mild minutes into the moderate intensity category. We conclude that researchers interested in exercise of at least a moderate intensity should still include a mild or light intensity category so that respondents do not “bump up” their mild intensity exercise into the moderate intensity category.

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**SEX DIFFERENCES IN DAILY PAIN REPORTING**

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Differences in pain levels and mood states are often reported between men and women, with women putatively reporting more pain and elevated negative mood states. The purpose of this study was to document pain and mood states using a 14-day daily pain diary. Fifty men and 50 women (mean age =26) recorded pain levels (0-10) at 7 a.m. and 6 p.m. mood symptoms (e.g., irritability) using modified PRISM calendars. Repeated measures analysis of variance showed a main effect for sex (women greater than men) on abdominal pain (F1,91=22.9, P<.01), low back pain (F1,91=4.8, P<.05) and pelvic pain (F1,91=6.2, P<.05). There were no differences on headache, jaw and face pain, neck and shoulder, and leg pain. Sex differences were also found on nausea (F1,91=7.1, P<.01) and irritability (F1,91=6.1 P<.05) but not on fatigue, anxiety, depression, or anger. Post hoc analysis comparing significant pain ratings and mood symptoms (abdominal, low back, pelvic, nausea, and irritability) between women who were menstruating, those who were not menstruating, and men showed that women who were menstruating reported elevated pain levels and symptoms significantly more often (46 out of 70 events across the 14-day period, binomial test P<.01). Non-menstruating women and men did not significantly differ. These results show that when studying sex differences in pain and mood, it is important to control not only for phase of menstrual cycle but menses as well. Future studies should extend the diary collection beyond 14 days and include the collection of biological markers associated with phase of menstrual cycle and pain/mood states.

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**MEASUREMENT OF COPING IN A DIVERSE SAMPLE OF TEENS**


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Background: Several instruments have been developed to assess coping in teens, but these have been developed in samples of higher socioeconomic status, non-Hispanic white youth.

Objective: This study investigated the psychometric properties and underlying factor structure of a widely used adolescent coping scale (Adolescent Coping Orientation for Problem Experiences- “ACOPE”) in a racially and socioeconomically diverse sample.

Methods: Cross sectional study of 1367 7-12th graders from a diverse Midwestern school district. Internal reliability (Cronbach’s alpha, CA) was assessed for the 12 subscales from the original psychometric evaluation. This was repeated in separate race, parent education, and gender subgroups to assess within-group internal consistency. Then exploratory factor analysis (EFA) using a varimax rotation method and forced 12-factor structure was performed in order to replicate the original 12-factor model.

Results: Five of the 12 original subscales were not reliable (CA<0.60). Internal consistency was lower among black teens for three subscales: “avoiding problems” (0.22 in blacks vs. 0.50 in whites), “ventilating feelings” (0.14 vs. 0.24), and “investing in close friends” (0.40 vs. 0.57). CA differed by parental education for three subscales: “solving family problems” (range: 0.63-0.74), “avoiding problems” (range: 0.35-0.49), and “engaging in demanding activity” (range: 0.58-0.72.) Small differences were observed by gender. EFA failed to replicate the original factor structure and explained less variance relative to the original psychometric evaluation (53.7% vs. 60.1%). Factor loadings were similar for only four of 12 subscales.

Conclusions: The original subscales are not generalizable beyond the original sample of upper middle class, white youth. Existing measures should be refined in order to be applied across diverse samples.

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**IDENTIFYING DISTINCT DOMAINS OF THE SOURCES OF DISPOSITIONAL OPTIMISM**

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Dispositional optimism, general expectations about the likelihood of favorable versus unfavorable occurrences, is well-studied in relation to coping with stress, psychological well being, and health-related behavior. Less is know about the sources of dispositional optimism. We used stimulated recall to elicit what is brought to mind in answering self-report items assessing this construct. We queried 113 undergraduates regarding the reasons for their answers to the Life Orientation Test (LOT). Their open-ended responses revealed several distinct categories. These were reasoning based on: (1) faith in, or lack of faith in, a benevolent, higher power; (2) belief in fate, a just world, or an unfair world; (3) one’s own good or poor luck; (4) belief in the role of one’s ability or inability to cope with adversity or to be in control of future events; (5) reliance on idioms; (6) beliefs about the usefulness of thinking optimistically; (7) a feeling, intuition, or hope; and (8) matter-of-fact statements. Individuals with higher LOT scores were more likely to base their responses on beliefs in a higher power (p < .001), fate (p < .05), and in their own ability (p < .05), and less likely to support them with matter-of-fact statements (p < .001). These bases for responses were, in turn, related to self-mastery, spirituality/religiousness, and coping styles in predictable ways. Dispositional optimism may subsume various types of reasoning, experiences, and beliefs about the future which are distinctly related to individuals’ outlook and style of coping with challenges.

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**DEVELOPMENT OF THE REVISED UNIVERSITY STUDENTS HASSLES SCALE (RUSHES)**

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Daily irritants or “hassles” are stronger predictors of psychological and physical health than major life events. The original Hassles Scale (Kanner et al., 1981) was designed to evaluate hassles in predominantly middle-aged populations. Scale limitations include extreme length, limited response options, and potential for confounding. Some items represent both a daily hassle (recovering from illness) and adaptational outcome (distressed physical health). Factor analyses undertaken to develop the 117-item scale used lower respondent/item ratios (0.84:1) and sample size (N=100) than recommended (10-15 subjects/item, 500-1000 subjects). Importantly, the scale’s content lacks specificity for young adults. Given the critical relationship of hassles to health, more reliable assessment tools are needed to evaluate this phenomenon in diverse populations.

This study’s purpose was to develop an internally consistent, reliable hassles scale that reflected the content, frequency, and severity of hassles experienced by University students. Phase I involved preliminary development and factor analyses of the University Students Hassles Scale (USHS) using data from 1076 University students. Phase II consisted of a psychometric evaluation of a Revised University Student Hassles Scale (RUSHES). Factor analyses (PCA with Varimax and Oblimin rotations) of data from 965 additional students yielded a stable, well-differentiated 11-factor 57-item solution with diverse content areas: time pressures, finances, friendships, traffic, safety, employment, physical appearance, parental expectations, gender, ethnicity, and religion. The RUSHES distinguished between high and low stressed students, was moderately correlated with mental health but not physical health. The RUSHES can be used to screen students “at risk” for increased stress, allowing interventions to be tailored to students’ specific needs.

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D-74  Meritorious Student Poster

AN EXAMINATION OF THE UTILITY OF THE BAI AND BAI-PC FOR DETECTING PANIC DISORDER IN PRIMARY CARE SETTINGS

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The Beck Anxiety Inventory (BAI) is a brief self-report measure with significant utility for screening panic disorder in primary care settings. The purpose of this study was to examine whether the primary care version of the BAI (BAI-PC), an abbreviated version of the original, could detect PD with the same accuracy as the original, making panic disorder screening more time-efficient.

Thirty-six individuals with a primary diagnosis of PD, and 64 individuals without an anxiety disorder diagnosis, based on a structured diagnostic interview, participated in the study. These individuals also were administered the BAI at the time of the interview. Cut scores, sensitivity, and specificity for both the BAI and BAI-PC were calculated.

ANOVA demonstrated that both the BAI and BAI-PC differentiate between individuals with and without PD [F(2,98)=123.23, p<.001 and F(2,98)=58.36, p<.001 respectively]. ROC analyses determined that for the BAI an optimal cut score of 10.5 would yield a sensitivity of .86 and specificity of .98. At an estimated population prevalence rate of 2.7%, this yields a positive predictive value (PPV) of 54% and a negative predictive value (NPV) of 99%. For the BAI-PC, a cut score of 5.5 would yield a sensitivity of .78 and specificity of .98, yielding almost identical PV and NPV.

The results suggest that the BAI-PC is a time-efficient substitute to the BAI. In the future, we suggest replication with individuals drawn from a primary care setting in order to examine what effect comorbid symptomatology (e.g., cardiac symptoms) may have on screening accuracy.

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THE EXERCISE-INDUCED FEELING INVENTORY-CHRONIC VERSION: VALIDITY AMONG OLDER CARDIAC REHABILITATION PATIENTS

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Although improving medical outcomes through exercise therapy is a primary objective of cardiac rehabilitation programs (CRPs), changes in psychological outcomes are also integral to determining the effectiveness of CRP-based exercise therapy. Therefore, the purpose of the present investigation was to examine the psychometric properties of the chronic version of the Exercise-Induced Feeling Inventory (EFI-C) among a sample of older adults in CRP. A total of 147 older adults were randomly assigned to receive a group-mediated activity counseling intervention (GMCB) or standard exercise therapy (EX) and completed the EFI-C at baseline and 3-months of each intervention. Factor analysis with varimax rotation revealed two internally consistent factors with eigenvalues greater than 1, pleasant feeling states (PFS) and physical exhaustion (EXH), which explained 69.4% of the variance in the item pool. Both subscales correlated in the expected direction with related psychological and physical activity constructs and showed sensitivity to change from exercise (p<0.0001). ANCOVA analyses of baseline-adjusted change scores revealed that men reported larger increases in PFS than women (p<0.02). Additionally, the treatment effect for exhaustion approached significance (p<0.06), a trend suggesting that the GMCB led to the greatest EXH reduction. Baseline also predicted change in each outcome indicating that participants reporting the most unfavorable baseline values experienced greater change in PFS and EXH. Collectively, findings support the initial validity of the EFI-C among older adults in CRP and suggest its potential utility for examining changes in exercise-related psychological outcomes during CRPs.

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SMOKING AFFECTS THE HEALTH STATUS OF HEART FAILURE PATIENTS

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Smoking is a major risk factor for the development of heart failure (HF); however little is understood about its effects on the health status of established HF patients. The purpose of this study was to examine the effect of smoking on the health status of patients with HF. HF patients (n = 537) were recruited from 13 outpatient clinics throughout the US. All eligible patients had ejection fractions < 40%. The Kansas City Cardiomyopathy Questionnaire (KCCQ) was used to assess disease-specific health status. Smoking status was assessed utilizing a 5-point Likert question. Patients rated their smoking from never smoked to have smoked in the last 30 days. Patients were categorized as never smokers, ex-smokers, or current smokers. Risk-adjusted multivariable regression was used to evaluate the cross-sectional association at baseline and one-year between smoking status and the KCCQ overall summary score. Current smokers comprised 15.6% (n=84) of the sample with 27.4% (n=147) reporting never smoking and 57.0% (n=306) reporting to be ex-smokers. At baseline, smoking had no significant effect on health status (F=0.46, p=0.63). However, a significant effect was observed on one-year health status (F=3.49, p=0.03) with current smokers reporting significantly lower KCCQ scores than never smokers (mean difference = -8.0±3.2, p=0.013) or ex-smokers (-7.0±3.0, p=0.02). These results provide new insights into the effects of smoking not previously discussed, expanding on the existing HF literature to include one’s perceived health status and outcomes.

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RELATIONSHIPS AMONG PHYSICAL ACTIVITY OUTCOMES, SYMPTOMS, AND SATISFACTION WITH LIFE DURING MENOPAUSE

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Evidence suggests that physical activity (PA) may enhance quality of life of menopausal women. However, little is known about the underlying mechanisms of this effect. Thus, the objective of the present study was to examine the relationships among leisure time PA, physiological outcomes, symptoms, and satisfaction with life (SWL) in 110 low-active peri-menopausal women (M age = 49.78, SD = 3.42). It was of interest to determine whether PA participation, physiological outcomes (fitness, body fat, body mass index), and symptom frequency or severity were related to SWL independently or through the mediation of psychosocial constructs such as physical self-worth (PSW) and self-esteem (SE). Structural equation modeling using the Mplus statistical software indicated that PA, body fat, and symptom frequency were related to SWL indirectly through the mediation of PSW which was related to SWL through the mediation of global SE. Physical activity, body fat, and symptom frequency accounted for significant variance in PSW (R^2 model = .35), with fitness approaching statistical significance (p < .01). Body fat and symptom frequency were also associated directly with global SE, and together with PSW accounted for 40% of the variance in global SE. The model fit the data well (X^2 = 3.856, p = 0.8; CFI = 1.0, RMSEA = .027) and accounted for 18% of the variance in SWL. The results suggest that the PA-SWL relationship in mid-life women may be mediated by factors such as physical self-perceptions or esteem.

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ASSOCIATIONS AMONG EXERCISE, BODY WEIGHT, AND QUALITY OF LIFE IN A POPULATION-BASED SAMPLE OF ENDOMETRIAL CANCER SURVIVORS

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Background: Lack of exercise and excess body weight may exacerbate treatment-related declines in quality of life (QoL) in endometrial cancer survivors. The primary purpose of this study was to examine the associations among exercise, body weight, and QoL in endometrial cancer survivors. Methods: Participants were 386 endometrial cancer survivors who completed a mailed survey that assessed self-reported exercise, height and weight to calculate body mass index (BMI), and QoL using the Functional Assessment of Cancer Therapy-Anemia (FACT-An) scale. Results: Descriptive data indicated that 70% of the sample were not meeting public health exercise guidelines and 72% were overweight or obese. Multivariate analyses of variance demonstrated that endometrial cancer survivors meeting public health guidelines for exercise and BMI reported significantly better QoL than survivors not meeting guidelines. The differences in QoL between the groups were clinically meaningful and were not altered when controlling for demographic and medical variables. Moreover, there was no interaction between exercise and BMI in their association with QoL.

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RELATIONS OF PREVIOUS LIFE TRAUMA WITH CURRENT COPING AND HEALTH-RELATED QUALITY OF LIFE

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Evidence that previous trauma exposure is related to current health status is beginning to accumulate (e.g., Aldwin & Yancura, 2004), although much remains to be learned about these influences. Further, some research has found that previous trauma can influence the ways that individuals cope with future stressors. The present study examines the relations of lifetime exposure to trauma and trauma appraisal (current stressfulness and resolution of the trauma) with health-related quality of life (HRQOL), as well as, coping efforts in connection with a current stressor. The sample included 84 university undergraduates (44% men, mean age of 19.1, reported race 81% White, 5% African-American, 5% Asian, 5% Latino, and 4% listed their race as ‘Mixed or Other’). Results indicated that students had fairly high levels of previous trauma exposure (80% had experienced at least one traumatic event). Lifetime trauma exposure was related to both physical and mental health components of health-related quality of life (p < .05), but appraisals of stressfulness and resolution of previous trauma were not significantly related to HRQOL. Lifetime trauma exposure and resolution of trauma were related to several strategies used in coping with a current stressor. Specifically, exposure and (inversely) resolution were related to using alcohol to cope. Further, individuals who appraised their trauma as more resolved used less mental disengagement and denial coping with a current stressor. Thus, while lifetime trauma exposure appears to significantly influence HRQOL, the resolution or stressfulness of the trauma was not associated with current HRQOL, but were associated with how individuals coped with a current stressor.

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HEALTH RELATED QUALITY OF LIFE AFTER A SECOND BREAST CANCER DIAGNOSIS

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Women with breast cancer may experience sexual dysfunction following treatment. We assessed psychometric properties of a 9-item sexual-functioning scale in preliminary analysis of baseline data of 355 women (144 patients with in situ or early-stage invasive breast cancer, 211 healthy, age-matched controls; mean age=57.6 years; 78% White, 21% Black; 59% married; 71% postmenopausal) a mean 6.6 weeks after surgery (patients) or screening mammogram (controls). Among the patients, 64% had breast-conserving surgery, and 36% had mastectomies. Sexual-functioning items were scored on a 4-point scale from “not a problem”=1 to “very much a problem”=4; higher scores indicate more problems. Cronbach alpha for the scale was .86. There were no differences in sexual functioning between patients and controls. Married women reported more problems with sexual functioning (p=.001) compared to unmarried women. Menopausal status was not associated with sexual functioning, but a severity of menopausal-symptoms scale (including vaginal dryness, hot flashes, and night sweats) correlated positively with sexual functioning (p<.001). Having more problems with sexual functioning correlated with younger age (p=.021), less availability of social support (p<.001), more concerns about body image (p<.001), and more severe anxiety (p<.001), depressed mood (p<.001), and pain and discomfort (p<.001). Sexual functioning was not significantly associated with body-mass index (p=.261), type of surgery (p=.428), or race (p=.133). The sexual-functioning questionnaire could be used for both breast cancer patients and healthy controls. The measure was associated with various psychosocial variables, menopausal symptoms, age, and being married, but not with physical attributes.

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THE RELATIONSHIP BETWEEN QUALITY OF LIFE AND SEXUAL DYSFUNCTION AMONG CHINESE ADULTS IN HONG KONG

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A population-based telephone study was conducted in the Hong Kong Chinese population and interviewed 1571 males and 3257 females aged 18-59 (respectively, 96.5% and 97.1% of them were heterosexual).

Among the sexually active heterosexual males (81%) and females (65%), 57% and 61% respectively had at least one sexual dysfunction (SD) for 3 consecutive months in the last year: pain, anxiety, lack of interest, lack of pleasure, lack of orgasm, premature orgasm (male), erectile problems (male) and lubrication problems (female). Only about 50% of all were satisfied with their sexual life. Univariate and multivariately, having SD were associated with lower overall quality of life (QOL), lower mental health and vitality QOL scores (SF-36 subscales). Similar univariately and multivariately significant associations between sexual satisfaction and QOL were noted.

The QOL of homosexual respondents seemed slightly better than their heterosexual counterparts. Among them, having SD was not associated with mental health and vitality QOL scores. Sexual satisfaction was not associated with vitality QOL score. For instance, the univariate OR for association between SD and vitality QOL score were 0.95 and 1.7 for homosexual and heterosexual populations (similar OR for association between sexual satisfaction and vitality QOL score were 1.11 and 0.63 respectively). The sample size was however small for homosexuals (n=150).

Sexual health plays an important role in determining QOL of the heterosexual population. Further research is required to study the importance of sexual health in the homosexual population.

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SEXUAL DIFFICULTIES, PSYCHOLOGICAL DISTRESS AND PROSTATE CANCER

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Study goal: This study aims to: 1) compare the prevalence of sexual difficulties across three modalities of treatment for prostate cancer: radiotherapy (RAD), brachytherapy (BR) and radical prostatectomy (RP), 2) assess the relationship between sexual difficulties, psychological distress (anxiety and depression) and quality of life. Procedure: Participants were recruited in the radio- oncology department and the cancer surgery clinic of l’Hôtel-Dieu de Québec. The sample was composed of 583 men who received treatment for prostate cancer. The participants completed the following questionnaires: the International Index of Erectile Function (IIEF), the Hospital Anxiety and Depression Scale and the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire. Results: Patients who received RP reported more sexual difficulties (84.4%) compared to patients who received RAD (75.9%) or BR (53.3%). Participants treated with RP obtained significantly lower scores, compared to those treated with RAD or BR, on the following subscales: erectile and orgasmic functioning, and satisfaction toward sexual relations. Greater sexual difficulties on the IIEF global score were significantly associated with higher scores of depression (r(2)=-.21, p<0.05), anxiety (r(2)=-.10, p<0.05), global psychological distress (r(2)=-.17 p<0.01), as well as with lower scores of quality of life (r(2)=-.22, p<0.01). Conclusion: Sexual difficulties are more frequent in patients treated with RP and may contribute to increase the risk for psychological distress and impaired quality of life, thus emphasizing the importance of offering sexual counselling to these patients.

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IMPACT OF DEPRESSION AND PAIN ON QUALITY OF LIFE IN PATIENTS WITH NON-CARDIAC CHEST PAIN

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Recurrent chest pain can impact virtually all aspects of daily life. Chest pain in the presence of normal coronary arteries is a frequent presenting complaint in cardiology settings, however, very little research has examined the impact of this often bothersome non-cardiac chest pain (NCCP) syndrome on quality of life. Data were collected from a sample of 170 patients (98 females, 69 males) with a primary complaint of chest pain or discomfort who were seeking cardiac evaluation at an urban academic medical center. Patients who met inclusion/exclusion criteria for this study on non-cardiac chest pain completed a multitrait multimethod assessment. A series of analyses were conducted to examine the relation between chest pain typology (frequency, intensity, and duration), depression, and quality of life. The majority of patients in this sample reported moderately intense pain or stronger (61%), and over half described experiencing chest pain at least weekly or more often (54%). Pain severity and self-reported depression were associated with compromised quality of life including role limitations (r's = .35 and .61), social limitations (r's = .35 and .61), and reduced emotional well-being (r's = .35 and .61), and all r's < .01. Results demonstrated that patients with NCCP suffer marked reductions in quality of life and increased depression, despite healthy medical prognosis. Findings highlight the need for improving interventions designed to address psychological aspects of this complex pain syndrome.

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IMPACT OF CHRONIC NONMALIGNANT PAIN ON QUALITY OF LIFE

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Patients (n=72) with chronic nonmalignant pain participated in a 1.5 hour group discussion. Groups were audio taped and themes were coded from written transcripts. Patients were asked about their experiences obtaining treatment for their pain, what types of treatments were helpful or not, and recommendations for improving primary care treatment of chronic pain. Most participants had pain for more than 3 years and most reported low back pain (68.1%) from work injury or accidents. Approximately 2/3 were female and 29.2% Spanish speaking Latinos. Over 72% reported their health as poor or fair, and 93% reported high current pain levels. Participants reported impacts including inability to work or to pursue their prior level of employment and income; problems with interpersonal relationships (lack of sexual intimacy, need for assistance with daily living activities, parenting difficulties, and conflict with family members); intrapersonal changes (anxiety, PTSD, sleep problems, mood changes, and self-esteem issues); and avoiding care for other illnesses due to negative interactions with the medical system around seeking relief for pain. Only about 1/3 indicated they had been referred to or sought behavioral health support to cope with the debilitating and pervasive impacts of chronic pain on life style, while some reported actively resisting such intervention as indicating an acceptance that a ‘cure’ was not in the offering. An overarching theme was the sense that both family members and the medical community viewed them as malingering, which substantially affects their overall ability to develop adequate cognitive and instrumental coping strategies.

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MULTIDIMENSIONAL SUBGROUPS OF CANCER PATIENTS REFERRED FOR PAIN MANAGEMENT

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Pain is among the most common symptoms experienced by cancer patients and has significant implications for patients’ quality of life. We assessed the clinical characteristics and quality of life of 131 consecutive cancer patients referred to an outpatient pain and palliative care clinic for pain management. Patients were assessed just prior to their initial visit and completed the short form of the Brief Pain Inventory (BPI-SF) and other health-related quality of life measures. Sixty-four percent of the patients were female and the average age was 54 years. At assessment, 62% had undergone surgery, 56% had received radiotherapy, and 54% had received chemotherapy to treat their disease. Using items from the BPI-SF, two step clustering analysis was performed to identify profiles of cancer patients with pain. Two patient clusters were extracted from the sample: a high pain group (n = 92, 71%) and a low to moderate pain group (n = 36, 29%). The high pain group was characterized by greater self-reported pain severity, greater interference with mood and activities, lower ratings of relief from medication, and more side effects from medication. The high pain group was significantly younger, less educated, and reported greater symptom distress (p values < .05). This group also had significantly poorer associated outcomes, including higher scores on the Beck Depression Inventory-II, and lower mental and physical composite scores on the SF-36 (p values < .001). These results suggest important differences in the experience of pain associated with cancer and have important clinical implications for assessment and treatment of pain in this population.

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ASSESSMENT OF HEAD & NECK CANCER -SPECIFIC QUALITY OF LIFE

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Quality of life (QOL) assessment in head and neck cancer (HNC) survivors represents unique measurement challenges. Patients often encounter extreme facial disfigurement, lose capacities of daily living associated with the head and neck (e.g., speech, eating), and depend on prostheses to compensate for these losses. The few QOL instruments tailored to this population are not specifically designed to test survivor QOL, including prosthetic performance. A transdisciplinary, multi-site team of researchers and clinicians familiar with QOL measures in this population generated questions based on existing instruments and clinical experience. The final instrument consisted of 133 quality of life items. It was administered to 93 HNC survivors (two to three years post-treatment) and analyzed using maximum likelihood factor analysis. The sample had a mean age of 64 years, mean cancer stage of 1.78, and can be described as 52% female, 82% white, 9% black, 8% other race, 56% high school graduates, 25% college educated, and 20% post-graduate educated. The scree plot revealed the presence of five distinct factors, which is within the range of four to nine revealed in other commonly used quality of life instruments. Varimax rotation of the five factor solution yielded excellent interpretability, including predicted subscales related to mouth function and disfigurement. The five subscales were labeled 1) Vitality, 2) Mouth Function, 3) Life Satisfaction, 4) Public Self-Consciousness and Disfigurement, and 5) Head and Neck Pain and Discomfort. After item reduction based on Cronbach’s Alpha calculations, the resultant 48 item scale will be tested in a sample of HNC survivors 5 years post-treatment.

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HEAD & NECK CANCER SURVIVORSHIP: QUALITY OF LIFE BY TREATMENT MODALITY

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Head and neck cancer (HNC) patients commonly receive treatment modalities of radiation, chemotherapy, surgery, and prostheses, which may have side effects lasting years beyond treatment. The primary goal of this study was to document survivor group differences in QOL by treatment modality. In a multi-site study, 93 HNC survivors (2-3 years post-treatment) completed the Head And Neck Cancer Inventory. The sample had a mean age of 64 years, mean cancer stage of 1.78, and can be described as 52% female, 82% white, 9% black, 8% other race, 56% high school graduates, 25% college educated, and 20% post-graduate educated. QOL subscales did not differ by baseline disease severity. One-way ANOVAs revealed significant group differences and trends by treatment modality. Surgery patients (vs. non-surgery patients) endorsed higher Life Satisfaction (p<.06) and lower Public Self-Consciousness and Disfigurement (p<.05). Chemotherapy patients endorsed higher Public Self-Consciousness and Disfigurement (p<.06). Radiation patients endorsed lower Mouth Function (p<.001). Prosthesis patients did not differ from non-prosthesis patients. Factors of Vitality and Head and Neck Pain and Discomfort did not differ by treatment modality. The side effects of radiation and chemotherapy appear to continue to affect HNC survivors two to three years post-treatment, while surgery appeared to benefit QOL. Prosthesis patients endorsed quality of life equal to patients who did not require or choose prosthesis, possibly indicating benefit of treatment. Public Self-Consciousness and Disfigurement appear to be important facets of HNC survivor QOL, indicating the need for disease-specific assessment. This study will be repeated in a sample of 5 year HNC survivors.

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DOES PRETREATMENT POSITIVE AFFECT MEDIATE CHEMOTHERAPY TREATMENT FOR BREAST CANCER?

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Chemotherapy treatment for breast cancer (BC) may negatively affect quality of life (QOL). The current study was designed to examine the mediating role of positive affect (PA) and negative affect (NA) in the relationship between chemotherapy treatment and QOL. Women with BC who were receiving chemotherapy were recruited. QOL was measured using the Functional Assessment of Cancer Therapy-Breast (FACT-B) and the Pittsburgh Sleep Quality Index (PSQI). At Time 1 (pre-treatment) and Time 2 (post-treatment), patients completed the PSQI and FACT-B. PA and NA were assessed using the Positive and Negative Affect Schedule (PANAS). The study design included a four-week period of chemotherapy treatment, which was divided into two two-week treatment periods. At Time 1, patients were assessed before the first treatment, and at Time 2, patients were assessed before the second treatment. The study sample included 40 women with BC, with a mean age of 49 years. At Time 1, PA was negatively related to depression, fatigue, and mood disturbance. At Time 2, NA was negatively related to fatigue, mood disturbance, and sleep disturbance. PA was positively related to social desirability, while NA was negatively related to social desirability. The results of this study suggest that PA may mediate the relationship between chemotherapy treatment and QOL in women with BC. Further research is needed to determine the mediating role of PA in the relationship between chemotherapy treatment and QOL in women with BC.

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IS NEGATIVE OR POSITIVE AFFECT RELATED TO WELL-BEING IN WOMEN UNDERGOING TREATMENT FOR CANCER INDEPENDENTLY OF SOCIAL DESIRABILITY?

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Negative affect (NA) is a "mood dispositional dimension" whose characteristics include anxiety, distress, and agitation. Previous research shows that NA is significantly correlated with physical WB. As the tendency to report NA is negatively related to social desirability, the possibility exists that social desirability accounts for this relationship. Another affective state, positive affect (PA; the tendency to feel excited about life, happy, and energetic), is not often studied. Although a few studies show that PA affects physical WB, most demonstrate that NA is the stronger predictor. To address whether NA/PA are related to well-being independently of social desirability, measures of these variables were collected from 60 women diagnosed with stage I/II breast cancer near the initiation of chemotherapy/hormonal treatment. Correlations calculated between the Positive and Negative Affect Schedule (PANAS) and the Functional Assessment of Chronic Illness Therapy (FACIT) revealed that NA was not significantly related to physical WB, social WB, or fatigue. However, NA was negatively related to emotional WB, functional WB, spiritual WB, and additional concerns associated with breast cancer (r's = -.46 to -.47, p < .05). Interestingly, PA was positively related to all subscales (r's = .42 – .69, p < .05). Moreover, social desirability did not influence the reporting of any measure. These data indicate that response bias such as social desirability may not be an important factor in QOL research, and the role of PA may be much more important than previously thought.

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ASSOCIATION OF SERUM CYTOKINES WITH SIDE-EFFECTS AND PHYSICAL ACTIVITY IN BREAST CANCER PATIENTS RECEIVING CHEMOTHERAPY

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Side-effects, such as fatigue, depression, and mood disturbance are highly prevalent and disruptive to quality of life. Alterations in immune function are proposed to play a significant role in their development, and, relatedly, evidence also suggests that patients’ degree of physical activity may be related to both symptom severity and immune function. The purpose of this study was to assess the relationship among fatigue, depression, cytokines, and physical activity (as assessed by actigraphy) in breast cancer patients during chemotherapy. We report on data from 37 women (mean age=51) who received 4 cycles of doxorubicin-based chemotherapy. Assessments for all study variables were made at the second and fourth chemotherapy treatments. These were done on the day of treatment for the cytokine assessments and one week following treatment for the other measures. Simple change scores in the measures between the 2nd and 4th treatments were calculated. Spearman’s Rho correlational analyses of these change scores indicated that fatigue (FSCL and MAF) was significantly correlated with IL-2 (r = .643, p < .05) and IL-8 (r = .391, p = .080), respectively. Depression (CES-D) was significantly correlated with TNFα (r = .403 p < .05) and Mood (POMS) was significantly correlated with IL-2 (r = .478, p<.05). TNFα significantly correlated with physical activity (r = .478, p<.05). These findings provide evidence that alterations in immune parameters are associated with the development of chemotherapy-related side effects.

Supported by Award DAMD 17-96-C-6106 from the DoD

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SPOUSAL RELATIONSHIPS AND PSYCHOLOGICAL DISTRESS IN LUNG CANCER PATIENTS AND THEIR SPOUSES

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Spouses of lung cancer patients provide critical support throughout the disease trajectory; however, support may be limited when spousal relationships are poor. Baseline data of 80 couples from a 6-month longitudinal psychosocial study in newly diagnosed lung cancer is presented. Patients were predominately white (86%), retired (52%), and male (59%); average age was 62. Results from the Brief Symptom Inventory (BSI) indicated 41.4% of patients and 44.2% of spouses were psychological distress cases. There were no distress differences between patients or spouses, regardless of gender. There was no correlation between patient and spouse BSI global distress; however, patients’ scores on the BSI Psychosocial scale (measuring interpersonal alienation to psychosis) was correlated with 5 BSI dimensions and global distress for spouses. Using SAS PROC Mixed, each participants’ report of relationship functioning (Dyadic Adjustment Scale–DAS) significantly predicted global distress (p<.001). Separate linear regressions for patients and spouses were conducted with global distress scores regressed on the 4 DAS subscales and gender. For patients, poor dyadic cohesion predicted distress (p=.03). For spouses, poor dyadic consensus predicted distress (p=.01). Gender did not significantly predict distress for either. Results indicated high rates of distress for lung cancer patients and their spouses. For patients and spouses of either gender, spousal relationship quality must be considered when delivering psychosocial interventions for distress; the dyadic component to target appears different for patients and spouses.

Funding: NCI R03 CA96462-01.
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MARITAL STATUS PREDICTS CHANGE IN DEPRESSION AND TRAUMA SYMPTOMS IN WOMEN WITH BREAST CANCER AND THEIR PEER COUNSELORS

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We conducted a non-randomized study matching 42 women newly diagnosed with breast cancer (“sojourners”) with 39 trained breast cancer survivors (“navigators”) who provided peer counseling for 3-6 months. All participants completed baseline, 3, 6, and 12-month assessments; 24 Navigators and 29 Sojourners provided at least one follow-up.

We tested whether being married buffered Navigators and Sojourners from distress by conducting ANOVAs (married vs. not) for baseline and slope of change in depression (CES-D) and trauma (PCL-C) symptoms. We also tested whether marital status reduced the likelihood of Navigators re-experiencing trauma as they worked with their Sojourners.

No baseline associations between marital status and distress were significant for Navigators or Sojourners. In both Navigators (F(1,23) = 7.43, p = .03) and Sojourners (F(1,28) = 7.61, p = .01), single status was associated with increased slope of CES-D symptoms. Single status was not associated with increase in trauma symptoms over time in Navigators (F(1,23) = 3.99, p = .06), or Sojourners (F(1,23) = 0.25, p = .62); but was associated with Navigator PCL-C Re-experiencing subscale (F(1,23) = 6.59, p = .02).

Providing ongoing training and emotional support to Navigators, particularly those who are who without other social support networks, is essential while they are matched with Sojourners.

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IMPROVEMENTS IN BREAST CANCER PATIENT HEALTH RELATE TO HUSBANDS’ DEPRESSIVE SYMPTOMS

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While it is increasingly recognized that spouses of women with breast cancer may experience significant psychological distress during the course of their wives’ treatment, it is unclear what factors may be most important in predicting distress. The purpose of the current study was to examine how changes in the physical health of the patient predicted levels of depression in the husband, and whether or not similar relationships might emerge in a comparison sample of healthy couples. This study surveyed husbands (n = 34, mean age=f53.63, SD=13.34) of women with breast cancer both while their wives were undergoing chemotherapy (time 1) and again one year later (time 2). A comparison group of husbands (n = 53, mean age=f49.83, SD=12.32), whose wives did not have a chronic or acute illness, was also recruited and surveyed. Husband’s depressive symptoms (CES-D) and health status of the wives assessed by proxy, (Quality of Well-Being Scale) were examined. Separate hierarchical linear regressions were conducted for the breast cancer and comparison group. In the breast cancer group, the amount of change in the wives’ health status accounted for a significant degree of variance in the husbands after controlling for husbands’ depressive symptoms at time 1. No relationship between change in wife’s health status and husband’s depression was found in the comparison group, although changes in health status and associated variance were present. Findings suggest that husbands’ distress is related to health status in wife and may decrease as the patient recovers from the breast cancer experience.

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CONSTRUCTION OF A RELATIONSHIP TALK MEASURE FOR USE WITH COUPLES FACING CANCER

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Although relationship talk is associated with conflict resolution and marital satisfaction in non-cancer samples, few reliable/valid instruments exist to assess it. This study represents a preliminary effort to construct a relationship talk measure for use in cancer. Assessing factors affecting marital functioning in cancer is important; poor relationships may interfere with patient adjustment and spousal support. Semi-structured interviews were conducted (13 patients, 12 spouses) to evaluate 1) the broad context of spousal communication in lung cancer and 2) the various dimensions of relationship talk. Interviews were audio-taped and transcribed. Using a Grounded Theory approach, coders identified seven dimensions: relationship quality, history, planning for the future, problem solving, sexual relations, wants/needs, and effects of cancer on the relationship. A 12-item Likert-style questionnaire assessing talk frequency and satisfaction with talk frequency was then synthesized. As part of a larger study, 80 lung cancer patients and their spouses completed the questionnaire. Twenty-two percent wanted more discussion of the effects of cancer on the relationship; 24% wanted more discussion regarding their wants/needs from their partner. Patients were predominantly white (86%), and male (59%). Average age was 62.

Exploratory principal components factor analysis (direct Oblimin) yielded a two-factor solution. Eleven items clustered on a single factor (a=.92). Convergent validity was established as relationship talk was significantly correlated with dyadic adjustment (r=.47, p=.0001) and several relationship maintenance strategies (p>.001).

Results suggest expanding the study of marital communication to include relationship talk in an effort to guide an understanding of how couples adjust to cancer.

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AFRICAN AMERICAN WOMEN AND QUALITY OF LIFE: STRATEGIES TO FACILITATE RESEARCH PARTICIPATION
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Much of the effort to include minorities in health research has focused on the participation of African Americans in clinical trials and biomedical research. Despite federal recommendations and high commitment and effort by researchers, the number of African Americans participating remains low. The present study identified impediments to participation and discusses strategies to facilitate recruitment of African American breast cancer survivors for participation in quality of life questionnaire research. Observations were made both from a study involving a large African American breast cancer sample recruited to complete a questionnaire packet and from a focus group of African American women answering a series of literature-based questions about participation. Many of the issues involved in the recruitment of African Americans for clinical trials and biomedical research appeared also to apply to quality of life questionnaire studies, even though the latter is minimally invasive, has minimal risk and does not include manipulated variables with placebo control groups. Both impediments and facilitators to participation were identified. Some of the barriers included: lack of trust in the research community, negative beliefs and misinformation regarding the research studies, and a stigma associated with breast cancer. Some of the facilitators included: involving prominent African American women and community organizations in the research, involving African American researchers on the team, offering monetary incentives, providing information about the research, and using effective channels to relay research information (e.g. African American radio and TV). Implications of these findings for specific recruitment protocols are discussed.
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SOCIAL SUPPORT AS A PREDICTOR OF HEALTH-RELATED QUALITY OF LIFE OUTCOMES IN HEAD AND NECK CANCER
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There is a growing body of evidence that social support influences health-related quality of life (HRQOL) outcomes in patients with cancer. Social support could be particularly important for patients with head and neck cancer (HNC) since this disease can disrupt daily activity as a result of altered speech, eating, and facial aesthetics. Methods: As part of a longitudinal outcomes assessment project, 318 patients with HNC filled out the Head and Neck Cancer Inventory, the MOS SF-36, and the Beck Depression Inventory as well as the Social Provisions Scale which measures perceived adequacy of social support. Multiple regression analyses were performed to determine the association between post-treatment social support and post-treatment HRQOL outcomes, while controlling for age, gender, stage and status at presentation (primary or recurrent). Results: Higher levels of perceived social support were significantly associated with higher (better) scores in three of the four HNC-specific domains: speech (t=2.562, p=.011), aesthetics (t=3.107, p=.002), and social disruption (t=2.322, p=.021). Higher social support scores were also associated with higher (better) general mental health scores (t=2.830, p=.005) and lower levels of depressive symptoms on the Beck (t=-2.079, p=.038). Social support was not significantly associated with general physical health (t=1.163, p=.245) or with eating (t=1.914, p=.056). Discussion: Post-treatment perceptions of social support were correlated with certain HRQOL outcomes in the HNC patient population. The potential to modify social support through clinical interventions could improve the survivorship of patients following cancer treatment.
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CANCER SUPPORT GROUP PARTICIPATION AND QUALITY OF LIFE: A MATTER OF INTENSIFICATION
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Purpose. This study compares prostate cancer support group attenders to non-attenders to see whether participation is related to positive and/or negative quality of life indicators. Sample. The sample included 490 men diagnosed with prostate cancer one to eight years prior (mean age 67). Variables. The primary independent variable was support group attendance. Dependent variables included happiness, positive affect, and adaptive changes, on the positive side, and depression, negative affect, impact of events (IOE) and thinking about their disease on the negative, plus a range of positive and negative coping strategies. Results. T-tests (all significant at p<.001) showed support group attendance was related to higher levels of negative affect, IOE, thinking about cancer, and depression. Additionally, support group attendance was related to self-reported adaptive life-style changes and considerably higher activation of both positive (active coping, emotional support, instrumental support, humor, plans) and negative (venting, blame) coping strategies. Regression analyses including age, treatment, subjective health, and support group attendance showed support group attendance was an independent predictor of depression, negative affect, disease-related thinking, adaptive coping strategies, and adaptive behavior changes. Conclusions. Support group attendance does not necessarily equate to beneficial quality of life outcomes, but appears to be a predictor of both positive and negative aspects of survivorship. Perhaps support group attendance is related to a general intensification of the experience. Future work can assess specific qualities of different kinds of support groups to see if variations are related to outcomes in different ways. Also, two competing explanations of the “intensification effect” will be discussed.
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RELATIONSHIP BETWEEN MEANING AND PURPOSE AND POST-TRAUMATIC STRESS AMONG WOMEN WITH BREAST CANCER
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There has been increasing interest in the role of benefit finding or having a sense of meaning and purpose as ways of coping with cancer. Likewise there has also been interest in levels of post-traumatic stress among women with breast cancer. What is the relationship of post-traumatic stress and having a sense of meaning and purpose? And do levels of post-traumatic stress predict meaning and purpose at a later date? These questions were examined using a sample of 181 women with breast cancer who had been diagnosed within the last year or had metastatic disease (n=10), and were highly correlated with meaning and purpose (r=.50, p=.000). Meaning and purpose were also significantly correlated in the PTSD subscales (r=.36, p=.000; for re-experiencing r=.46, p=.000; for arousal r=.40, p=.000). Re-experiencing and Arousal predicted Meaning and Purpose at three months (R2=.16, F=14.0, p=.001), six months (R2=.15, F=11.0, p=.001) and one year R2=.07, F=5.1, p=.008). These results suggest that the ability to find meaning and purpose for women with breast cancer may be affected by flashbacks, nightmares, memories, and uncontrollable thoughts, feelings, and images of the diagnosis and treatment as well as decreases in concentration, an elevated sense of alertness, increased startle response, insomnia, and irritability. These findings may hold true for other cancers and other illnesses as well.
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GRATITUDE AND SUBJECTIVE HEALTH IN ORGAN TRANSPLANT RECIPIENTS

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Gratitude, the conscious focus of perceived benevolence from others, has been linked to greater psychological, physical, and relational well-being. In the present study, we examine the experiences and expressions of gratitude in persons that have received donor organs. This is a unique and ideal sample within which to examine the emotion of gratitude and its relation to psychological and physical functioning. A national sample of transplant recipients (N = 140) was collected from the U.S. Transplant Games in June of 2002. The recipients received either heart, liver, lung, kidney or pancreas transplants from living or cadaveric donors. Mean participant age was 49.5 years; range = 15-69 years. They were administered a packet of well-being and affect questionnaires, including three independent measures of gratitude, indebtedness, and medical outcomes (SF-36). Results indicated that the role-physical functioning subscore on the SF-36 was related to expression of gratitude (r2 = .287, p = .048) in that participants who wrote that they had expressed gratitude in some way, either directly or indirectly, had less problems with physical roles (i.e. carrying groceries, walking, exercising). Trait gratitude predicted higher levels of vitality and satisfaction with life. Indebtedness, conversely, was related to lower scores on the SF-36. A negative correlation was found between the number of negative emotion words in the narratives and role-emotional functioning subscores on the SF-36 (r = .286, p = .049). The study adds to the growing literature on positive emotions and health-related quality of life and suggests that both experiences and expressions of gratitude contribute to improved psychological and physical functioning following transplantation.

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RELIGIOUS COPING AND INVOLVEMENT: RELATIONSHIP WITH DISTRESS AND SATISFACTION WITH LIFE IN HUSBANDS OF WOMEN WITH BREAST CANCER

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Although there is a growing understanding of how religious/spiritual factors may relate to well being in patient populations and the general population, there has been little examination of the relationship between such factors and the well being of spousal caregivers, a subgroup that may be particularly vulnerable to distress. The purpose of the current study was to examine this relationship in husbands of women with breast cancer. Participants included 35 husbands whose wives had been treated for breast cancer during the past year. Husbands were asked to consider the degree to which they used two positive (Collaborative and Active Surrender) and three negative (Passive Deferral, Pleading and Spiritual Discontent) forms of religious coping when dealing with their wives’ illness. Additionally, participants completed questions regarding the frequency with which they attended church services, other church activities, and prayed privately. Correlations examined potential relationships between these religious factors and satisfaction with life (SWLS) and emotional distress (POMS). Results indicated that both positive forms of religious coping were positively related to satisfaction with life. Active involvement in a church community was inversely related to anger and depressive symptoms. Interestingly, none of the three negative forms of religious coping were significantly related to satisfaction with life or emotional distress. Although exploratory in nature, these results suggest that use of positive forms of religious coping and active involvement may be related to better adjustment in spousal caregivers. Prospective examination of how religious involvement and coping predict well being in caregivers may be warranted.

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WOMEN’S BELIEFS ABOUT THE QUALITY OF LIFE EFFECTS OF CANCER WORRY

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The benefits of medical care include not only prevention of death but also improved health-related quality of life (HRQOL). HRQOL is a biopsychosocial concept that includes psychological well-being as well as physical function. We examined the potential importance of worry on the HRQOL of a population. A population based sample of 702 women between the ages of 50 and 85 were asked to provide estimates of the HRQOL effects of moderate and severe levels of cancer worry. A telephone version of an analog scale was used allowing women to report a number associated with the HRQOL that they felt reflected the HRQOL of a hypothetical woman experiencing different levels of cancer worry. Although moderate and severe levels of cancer worry are relatively rare, women’s reports indicate that women generally feel they have a significant impact on HRQOL when they occur. Women estimates reductions in HRQOL associated with these states of 33% and 66% respectively. Using these estimates to inform a public health model suggests that on average there is reduction in HRQOL associated with worry about cancer risk between 6% and 1%. Screening has the potential to increase or decrease worry and thus to have substantial influence on the HRQOL effects of worry. Though worry about cancer risk may not reflect clinically significant levels of anxiety or depression women appear to feel that the effects of worry are not insignificant. When examined from a population perspective the psychological effects of screening on population HRQOL may be substantial.

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RELIGIOUS AND SPIRITUAL COPING AMONG PATIENTS WITH EMPHYSEMA

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Emphysema is often associated with declines in psychological, physical, and cognitive functioning. Few studies have examined coping styles among patients with emphysema, and no previous studies have examined religious and spiritual coping. This study was designed to evaluate religiosity and spirituality among 39 patients with emphysema (mean age = 64.0 yrs; 79% male; 95% white; 5% black) and 39 healthy control participants, matched by age, sex, race, and education. All participants completed baseline assessments of psychological well-being (depression, anxiety), quality of life (Medical Outcomes Study SF-36), illness-specific quality of life (St. George’s Respiratory Questionnaire), cognitive functioning (WAIS), pulmonary functioning (FEV1/FVC), and coping styles (COPE). At 2-year follow up, participants completed the COPE as well as measures of religious coping (RCOPE) and of religiosity and spirituality (Brief Multidimensional Measure of Religiousness/Spirituality). Results indicated that 79% of the emphysema patients reported using at least one dimension of religiosity and spirituality in coping with emphysema. Religious coping was associated with poorer physical functioning (reduced physical activities, r = -.41, p <.011; illness-specific quality of life, r = -.35, p <.034) and better cognitive skills/strategies (nonverbal memory, r = -.24, p <.039; overall coping r = .53, p <.000). At 2-year follow up, the emphysema patients used religious coping (F1,75 = 5.27, p <.04) more frequently than the healthy control group. The data suggest that religiosity and spirituality are commonly used for coping with emphysema, that patients with emphysema may be more likely to use religious coping than healthy individuals with similar demographic characteristics.

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CONFIRMING TRANSTHEORETICAL STRUCTURAL MODELS OF COLLEGE STUDENT SPIRITUAL EXPRESSION

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To expand the research base on religion and health, the Transtheoretical Model (TTM) of behavior change was applied to spiritual expression. Recent literature established a link between expressing one’s spirituality and positive health outcomes. The TTM allows researchers the flexibility to determine how ready one is to express their spirituality. The primary goal of this study is to confirm and extend the findings of Ward, 2003. In the current study, we sought to validate the measures when examining an supplementary sample. The sample consisted of 245 college students (56.5% women) from a moderately sized Midwest university. The ethnic breakdown of the sample was representative of national averages. Most participants were single (90.3%) and had a mean age of 18.37.

The measurement model for decisional balance was a correlated 3 factor model representing the pros (Intrinsic and Extrinsic) and cons, CFI=.91, TLI=.89. A correlated 3-factor model representing situational confidence (Peer Social Situations, Negative Moods, Positive Moods) fit self-efficacy, CFI=.88, TLI=.85. The internal consistency for all subscales was good (intrinsic pros = .93, extrinsic pros = .86, cons = .73, peers = .88, negative moods = .90, and positive moods = .92). All constructs showed significant relationships across stage (p<.01) consistent with theoretical expectations. The stage distribution indicated 29.8% precontemplation, 10.5% contemplation, 50.0% preparation, and 4.8% action/maintenance. The MANOVA for stage by TTM constructs was significant, Wilks' lambda = .57, p<.001, eta-squared=.13.

Stage based studies aimed at increasing spiritual expression in college students can utilize these findings to build stronger interventions. Future research may want to track the stability of these measures across time.

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SPIRITUAL WELL-BEING PREDICTS PHYSICAL SYMPTOM COMPLAINTS AND ILLNESS IN ORTHODOX JEWISH WOMEN

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Research indicates that participating in religious and spiritual activities may help reduce the risk of ill health. Participants who endorsed a higher degree of spiritual well-being were hypothesized to report fewer symptom complaints and less illness over the past year. One hundred undergraduate Orthodox Jewish women (mean age = 20 yrs) completed self-report measures of the Physical Symptom Checklist (Woods & Lyons, 1990) and the Spiritual Well-Being Scale, which is comprised of subscales that assess existential and religious well-being (Ellison, 1983). Existential well-being (a belief that life has special meaning) but not religious well-being (respondents' relationship with God) predicted decreased frequency of physical symptom complaints over the past year (p < .01) and fewer days spent in bed due to illness (p < .02). Common symptom complaints occurring every few months or more, in participants with lower existential well-being scores (n = 43), included headaches (88%), cramps (84%), insomnia (74%), acne (68%), fatigue (65%), nausea (61%), abdominal pain (60%), colds (56%), constipation (54%), and diarrhea (51%). These results suggest that the way Orthodox Jewish women experience spiritual well-being has an impact on physical health. Thus, existential spirituality may be an important predictor of health within religiously homogeneous groups.

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FAITH, HARDINESS AND HEALTH

Kathleen A. Lawler, Ph.D.,1 and Jennifer G. Clement, B.A.1

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Spiritual well-being, assessed as both religious (RWB) and existential well-being (EWB), has been clearly linked to physical health. There are similarities between the concepts of existential well-being and sense of coherence (SOC) or hardiness, especially the meaningfulness and commitment components. People with a strong SOC feel that life events occur for a reason and are controlled by some logic or superior force. Since hardiness, by definition, serves to buffer the stress—illness relationship, spirituality might operate in a comparable way. The relationships among spiritual well-being, hardiness and health were examined in 200 college students. These students were typical undergraduates, unselected for religious orientation or involvement. Health was assessed as physical and mental symptoms, as well as satisfaction with life. Stress, measured with a college student life-event scale, was strongly associated with total (physical and mental) illness symptoms (r=.65, p<.0001). Hardiness, assessed as Bartone’s dispositional resilience (DR) and as Antonovsky’s sense of coherence, buffered the stress—illness association (rsq=.46 for DR; rsq=.47 for SOC; interaction terms significant in both (p’s <.01 and .04)). While existential well-being was correlated with both health status without controlling for SOC, EWB did not moderate the stress—illness relationship. Frequency of church attendance was also correlated with health (r=.20, p<.01), but not with hardiness. Path analysis indicated two pathways toward health: frequency of church attendance (.45) and stress (.52) directly predicted health. Religious well-being increased health indirectly through attendance, while existential well-being increased health indirectly through hardiness and stress. Thus, spirituality enhances the hardiness-driven buffering of the stress—illness association, and religiousness enhances health through attendance, perhaps via healthy behaviors and sociality.

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THE RELATION BETWEEN MEDICAL KNOWLEDGE AND HUMANITARIAN SKILLS AMONG EMERGENCY MEDICINE RESIDENTS

Erin L. O’Hea, Ph.D.,1 Kathryn K. Appolonia, M.A.,2 Emily A. Hoyt, M.A.,3 Seth Kuen, Ph.D.,4 and Ed Boudreaux, Ph.D.5

1Psychology, La Salle University, Philadelphia, PA; 2Psychology, La Salle University, Philadelphia, PA; 3Psychology, La Salle University, Philadelphia, PA; 4Emergency Medicine, Louisiana State University Medical School, Baton Rouge, LA; and 5Emergency Medicine, Robert Wood Johnson Medical School, Camden, NJ.

Psychologists have begun playing a larger role in assisting medical residency programs with systematic resident evaluations. Recently, Boudreaux et al. created a 360-degree performance evaluation procedure that has been shown to be highly reliable and valid. Two subscale scores are derived from the scale: Perceived Medical Competence and Perceived Humanitarian Skills. The present study presents our findings regarding the relationship between these evaluation scores and 4 standardized measures of actual medical knowledge (i.e., USMLE Step I and the American Board of Medical Examiners (ABEM) Steps 1, 2, and 3). Pearson’s product moment analyses demonstrated strong correlations between Perceived Medical Competence and Perceived Humanitarian Skills for each of the 4 rater groups (r>.60, p<.001). However, weak correlations were found between the standardized tests of medical knowledge and all 4 groups’ evaluations of Perceived Medical Competence and Humanitarian Skils. These findings have implications for the importance of humanitarian skills training for medical students/residents.

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RELIGIOUS AND SPIRITUAL BEHAVIOR CHANGE AMONG CANCER SURVIVORS

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Research on religious and spiritual (R/S) behaviors has revealed both positive and negative associations with health outcomes. Additionally, being diagnosed with and treated for cancer has been associated with psychosocial changes such as religious or spiritual growth. Rarely have studies examined R/S behaviors as both predictor and outcome variables. 250 cancer survivors (M=49.7; SD=12.0), 6-120 months post-diagnosis, completed an online survey. Reports of current involvement, change, and time spent in private R/S activities were obtained along with information on demographic, clinical, dispositional, and psychosocial variables. 140 participants (Practicing group) reported regularly spending time in R/S activities (M=35 hours in last month) and 110 participants (Non-Practicing group) reported they did not (M=2 hours in last month). T-tests revealed no differences between these groups for age, education, stage, time since diagnosis, and social desirability. Participants were asked if the amount of time spent in R/S activities changed since their cancer diagnosis. In the Practicing group, 83 participants reported an increase, 51 participants reported no change, and 5 reported a decrease. For those in the Non-Practicing group, 17 reported an increase, 77 reported no change, and 10 reported a decrease. While increases in R/S activities were somewhat common (40%) and decreases were infrequent (6%), no differences were found for those who increased versus those who decreased on clinical, dispositional, and psychosocial variables. Similarly, when parallel ANOVAs were conducted to examine differences among the Practicing and Non-Practicing groups, no differences were found on measures of cancer-specific distress, quality of life, social support, and optimism (all ps>.05). The Practicing group, however, reported higher positive affective states (p<.01). Results suggest that engaging in R/S behavior has limited associations with psychosocial outcomes.

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Symposium #9A

CONCEPTUAL ISSUES AND OVERVIEW OF PRACTICAL CLINICAL TRIALS

Robert M. Kaplan, Ph.D.¹
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There is an increasingly well documented gap between best practices identified in research and the care delivered in practice for both preventive services and chronic illness care. There are multiple and interrelated reasons for this gap, but at least part of the cause is that many practitioners do not view the majority of research studies as being applicable to their clinical situations. Discussions of evidence-based behavioral medicine (EBBM) are very recent, but it seems important to ensure that EBBM criteria include features that will enhance relevance and external validity, and help to close the gap between research and practice. This talk will discuss the key characteristics described by Tunis, Stryer and Clancy (2003) in their seminal article on ‘practical clinical trials’. Such trials a) recruit a diverse, heterogeneous sample of participants, b) are conducted in multiple representative settings, c) compare new treatments to realistic alternative interventions, and d) include multiple outcome measures that are relevant to key stakeholders. This talk extends the ideas and recommendations of Tunis and colleagues (2003) to evidence-based behavioral medicine, and discusses recommendations that can accelerate the transfer of research into practice.

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Symposium #9B

UNIQUE ISSUES RELATED TO PRACTICAL TRIALS IN BEHAVIORAL MEDICINE

Bonnie Spring, Ph.D., A.B.P.P.,¹ Karina W. Davidson, Ph.D.,² and Kimberlee J. Trudeau, M.A.³
¹Department of Psychology, University of Illinois at Chicago, Chicago, IL; ²Behavioral Cardiovascular Health & Hypertension Program, Columbia University, College of Physicians & Surgeons, New York, NY; and ³Social-Personality Psychology Program, CUNY Graduate Center, New York, NY.

Several aspects of practical trials are expected to be of particular interest to the field of behavioral medicine. These include: 1) Therapist issues regarding allegiance, supervision, fidelity, etc. For example, what qualifications are needed to successfully deliver the interventions? 2) Tailoring of interventions, especially over time. Is it feasible to have behavior change principles that do not change, despite the fact that exactly what intervention each person receives is tailored in its level of complexity and adaptation over time? and 3) Integration with health care system, fit with delivery systems, worksites, or community programs. How can these best be achieved? Following this analysis, a brief example of a practical trial will be presented.

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Symposium #9C

MEASUREMENT FOR PRACTICAL CLINICAL TRIALS

Russell E. Glasgow, Ph.D.¹, Judith Ockene, Ph.D., M.Ed.,² and Patricia L. Dobkin, Ph.D.³
¹Clinical Research Unit, Kaiser Permanente Colorado, Penrose, CO; ²Division of Preventive and Behavioral Medicine, University of Massachusetts Medical School, Worcester, MA; and ³Department of Medicine, McGill University, The Montreal General Hospital Research Institute, Montreal, QC, Canada.

The key characteristics of measures for practical trials are that they are multiple and address issues of importance to clinicians, decision and policy makers. This presentation presents recommendations for outcomes central to practical behavioral trials (PBTs). It will be argued that a package of measures of behavior change, quality of life, implementation, generalization, and economic outcomes should be included in such studies. Such a package is feasible to include in many PBTs. The last three types of measures can be included without adding burden to participant assessments. Failure to adequately implement an intervention is one of the most frequent reasons that interventions do not work in real world settings, and should be documented. Evaluations should include multiple interventionists and assess adaptations made to make a protocol more practical. The costs of delivering the practical intervention in representative settings should be documented, and preferably other economic outcomes such as cost-effectiveness analyses also included. The purpose of including heterogeneous settings and patients in PBTs is to evaluate the generalization of intervention effects across settings, patient and interventionist characteristics. Quality of life is proposed as an ultimate final outcome appropriate for PBTs. The RE-AIM model offers one approach for combining measures proposed above in an integrated fashion.

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Symposium #10

8:30 AM–10:00 AM

PSYCHOSOCIAL AND BEHAVIORAL FACTORS ASSOCIATED WITH STIGMA IN HIV+ ADULTS: ADHERENCE, COPING, DISCLOSURE, FORGIVENESS AND GAY IDENTITY

Discussant: Cheryl Gore-Felton, Ph.D., Center for AIDS Intervention Research

The past two decades of HIV research focused on prevention in an effort to understand and contain the disease. Recently attention has turned to the implications of stigma for healthcare in the HIV population. As a result of HIV initially emerging in gay men in the U.S., the virus became associated with this culture, tapping into pre-existing, marginalized dynamics and creating an environment less than optimal for prevention efforts. Significant increases in HIV rates in non-gay populations have done little to mitigate this association. This symposium presents research that examines the involvement of stigma in psychosocial and behavioral determinants of health.

The symposium begins with a review of research literature published since 1994 on stigma and HIV detailing empirical findings on stigma’s linkage to psychological functioning, disclosure, barriers to health care and symptom load. Measurement of HIV-related stigma and interventions studies will be discussed. Next the symposium presents research on the association between medication adherence and gay identity in a multicultural sample of HIV+ men who have sex with men. The mechanisms by which adherence and identity interact will be explored, with a focus on ethic affiliation and social support. The symposium ends with a presentation on research examining associations between stigma and maladaptive coping in HIV+ adults. The role of pessimism, self-forgiveness and stigma is explored in a model examining variance in maladaptive coping strategy usage.

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Symposium #10A

STIGMA AND HIV: A REVIEW OF QUANTITATIVE EMPIRICAL LITERATURE

Melissa Ranucci, B.S., 1 Elaine Stephen, 1 and Mark Vosvick, Ph.D. 1

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Symposium #10C

CORRELATES OF MALADAPTIVE COPING STRATEGY SELECTION IN HIV+ ADULTS: STIGMA, PESSIMISM AND FORGIVENESS

Mark Vosvick, Ph.D. 1

1 Health Psychology/Behavioral Medicine, University of North Texas, Denton, TX.

This study examined the association between use of maladaptive coping strategies and psychosocial variables such as HIV-related stigma, pessimism and forgiveness among 230 (46% female) adults living with HIV. Participants enrolled in a pilot study, Project VOICES, completed demographic and medical questionnaires as well as measures that assessed HIV-related stigma (HIV Stigma Scale), pessimism (ELOT), forgiveness (Heartland Forgiveness Scale) and coping (the Brief COPE). Maladaptive coping, per Carver and Scheier, included five scales from the Brief COPE: behavioral disengagement, self-distraction, denial, venting and substance use. Self-forgiveness was significantly negatively associated with both HIV-related stigma (r=.32, p<.01) and pessimism (r=.40, p<.01). Moreover, greater use of each of the maladaptive coping strategies was positively and significantly related to higher levels of HIV-related stigma and pessimism, however negatively and significantly related to lower levels of self-forgiveness. After controlling for gender, age, education, ethnicity, number of years HIV+, use of HIV medications and symptom load, five separate multiple regression analyses found that greater maladaptive coping usage was associated with higher levels of both stigma experiences and pessimism but lower levels of self-forgiveness. Variance accounted for by the model ranged from adjusted R²'s of .098 (for behavioral disengagement, F[12,210]=6.70, p<.001) for substance use, .21 (F[12,214]=6.21, p<.001) for denial, .32 (F[11,214]=3.72, p<.001) for venting and .34 (F[11,217]=3.47, p<.001) for self-distraction. These findings suggest that interventions that focus on reducing psychological distress associated with HIV-related stigma and pessimism and encouraging self-forgiveness may shift HIV+ adults away from maladaptive coping, which has been linked in previous research to poorer psychological and physiological quality of life.

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Symposium #10B

GAY IDENTITY AND ADHERENCE TO HIV MEDICATION: MECHANISMS OF ASSOCIATION IN A MULTICULTURAL SAMPLE OF HIV-POSITIVE MSM

Ron Durán, Ph.D., 1 Michael Antoni, Ph.D., 1 and Neil Schneiderman, Ph.D. 1

1 Psychology, University of Miami, Coral Gables, FL.

This study examined the association between use of maladaptive coping strategies and psychosocial variables such as HIV-related stigma, pessimism and forgiveness among 230 (46% female) adults living with HIV. Participants enrolled in a pilot study, Project VOICES, completed demographic and medical questionnaires as well as measures that assessed HIV-related stigma (HIV Stigma Scale), pessimism (ELOT), forgiveness (Heartland Forgiveness Scale) and coping (the Brief COPE). Maladaptive coping, per Carver and Scheier, included five scales from the Brief COPE: behavioral disengagement, self-distraction, denial, venting and substance use. Self-forgiveness was significantly negatively associated with both HIV-related stigma (r=.32, p<.01) and pessimism (r=.40, p<.01). Moreover, greater use of each of the maladaptive coping strategies was positively and significantly related to higher levels of HIV-related stigma and pessimism, however negatively and significantly related to lower levels of self-forgiveness. After controlling for gender, age, education, ethnicity, number of years HIV+, use of HIV medications and symptom load, five separate multiple regression analyses found that greater maladaptive coping usage was associated with higher levels of both stigma experiences and pessimism but lower levels of self-forgiveness. Variance accounted for by the model ranged from adjusted R²'s of .098 (for behavioral disengagement, F[12,210]=6.70, p<.001) for substance use, .21 (F[12,214]=6.21, p<.001) for denial, .32 (F[11,214]=3.72, p<.001) for venting and .34 (F[11,217]=3.47, p<.001) for self-distraction. These findings suggest that interventions that focus on reducing psychological distress associated with HIV-related stigma and pessimism and encouraging self-forgiveness may shift HIV+ adults away from maladaptive coping, which has been linked in previous research to poorer psychological and physiological quality of life.

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Symposium #11

MINDFULNESS MEDITATION: MODELS FOR INTERVENTION IN HEALTH APPLICATIONS

Discussant: Susan Bauer-Wu, D.N.Sc., R.N., Dana-Farber Cancer Institute, Harvard University

Mindfulness meditation holds substantial promise as a core component of integrative approaches to changing health behavior; it may be particularly successfully in promoting internalization of behavior change and in promoting physiological and psychological self-regulation. While most frequently associated with the successful Mindfulness-Based Stress Reduction program, variations on this program are rapidly developing that may be well suited for use with specialized populations. This symposium will present three interventions oriented toward health-related problems that utilize mindfulness meditation as primary elements of the intervention. Each paper will describe the rationale and structure of the program, in relation to the particular health problems that it seeks to address and how these components relate to other aspects of the intervention, and will review the evidence supporting effectiveness. Their similarities and differences to the standard MBSR 8-week intervention will be reviewed. Finally, issues related to study design, outcome measures, and the underlying therapeutic processes of meditation will be examined, including the distinction between guided and general meditations. The goals of this research also include the question of the particular value of mindfulness meditation in supporting effective changes in food intake regulation; mindfulness meditation may be particularly valuable in promoting non-judgmental awareness of internal cues in self-regulatory responses which may supplement knowledge-based nutritional change programs.

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Annals of Behavioral Medicine

Symposium #11A

MINDFULNESS MEDITATION AS A SUPPORT IN DIETARY CHANGE

James F. Carmody, Ph.D.,1 and James Hebert, D.Sc.2

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Meditation is typically introduced in relation to medical conditions as a means of reducing symptoms related to autonomic function. This presentation will show data from a study in which mindfulness meditation was incorporated into a program not primarily as a therapeutic intervention in its own right, but to support another behavior, namely dietary change. There is ample biological and epidemiological evidence that diet has an effect on the incidence and possible the progression of prostate cancer. A prostate healthy diet however represents a radical change for most American men. The study was to determine if that dietary change would impact the progression of a life-threatening illness namely a recurrence of prostate cancer after primary treatment and affect the men’s quality of life. In an uncontrolled pilot study, 10 men with a rising PSA after primary treatment for prostate cancer were assessed before and after a 12-week mindfulness and dietary change intervention. Mean fat consumption decreased, as did the mean saturated fat intake. The mean caloric intake also decreased and the mean weight reduction for the group was 9kgs. The median PSA doubling time for the group increased from 6.5 months during the pre-study period to 17.7 months in the post-study period. Scores on the FACT QOL Total (also including the Prostate-Specific scale) improved significantly (p=0.001). Their scores on the emotional wellbeing subscale of the FACT showed a large increase (Standard score of 60 pre, 72 post-intervention). There were also significant improvements on the General Health Perceptions and Mental Health Index of the SF-36.

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Symposium #11B

MINDFULNESS-BASED EATING AWARENESS TRAINING (MB-EAT): AN INNOVATIVE TREATMENT FOR COMPULSIVE EATING AND OBESITY

Jean L. Kristeller, Ph.D.,1 Ruth Quillian-Woliver, Ph.D.,2 and Virgil Sheets, Ph.D.3

1Psychology, Indiana State University, Terre Haute, IN; and 2Duke Center for Integrative Medicine, Duke University Medical Center, Durham, NC.

Mindfulness meditation may help improve disregulated processes underlying compulsive eating as a component of obesity, in that it may promote greater internalization of change: MB-EAT includes basic meditation training, eating meditations, and meditation related to hunger awareness, taste-specific satiety, emotional triggers, and forgiveness. This paper reports final results of a multi-site RCT: 154 obese (BMI = 39; Wt = 240 lbs.) men (13%) and women (13%) AF-Am; avg. age = 46.3) with BED (using the EDE) were randomized to MB-EAT, a psycho-educational (PE) treatment or a waiting list (WL), with 1 and 4 month followup. Both MB-EAT and PE showed significant improvements at 1 and 4 mons (B, 1, 4) compared to the WL group on binges/mos (p<.01), the Binge Eating Scale (p<.01), Eating Self-Efficacy (p<.05), and depression (BDI) (p<.01). Consistent with our hypothesis, results for the MB-EAT group suggest greater of internalization of change for the MB-EAT group in contrast to the PE group, as indicated by the TFQ: Disinhibition Scale (p<.01) and the Cognitive Restraint Scale (p<.05). Greater change on the Disinhibition Scale also predicted weight loss (r=-.28, p<.05). These results suggest that the MB-EAT decreased binge eating symptoms comparable to that of other interventions, and addresses possible mechanisms of meditative practice. Supported by NIH-NCCAM R21 AT00416-01.

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Symposium #11C

USE OF MINDFULNESS IN AN INTEGRATIVE MODEL OF HEALTH: RCT FOR CORONARY RISK PREVENTION

R. Quillian-Woliver, Ph.D.,1 T. Gaudet, M.D.,1 R. Liebowitz, M.D.,1 J. Brantley, M.D.,1 D. Edelman, M.D.,2 S. Moon, M.D.,1 L. Smith, P.A.,2 W. Yancy, Jr., M.D.,2 M. Olsen, Ph.D.,2 A. Jeffreys, M.Stat.,2 A. Harris, B.S.,2 and E. Oddone, M.D.2

1Duke Center for Integrative Medicine, Duke University Medical Center, Durham, NC; and 2Division of General Internal Medicine, Duke University Medical Center, Durham, NC.

Mindfulness meditation holds substantial promise as a core component of integrative approaches to changing health behavior. Duke Center for Integrative Medicine has evolved such a model of health to support a proactive health stance that increases personal accountability. We tested the model in an RCT (N=154) of primary care participants at moderate risk for coronary heart disease (CHD). Intervention participants received an intensive, standardized intervention with mindfulness training at its core, in addition to education, strategic health planning and health coaching. Outcomes were assessed at baseline, 5 and 10 months. Ten year risk of CHD was computed using a standard Framingham Risk Calculator. Linear mixed effects modeling demonstrated significant improvement in 10-year risk for intervention participants compared to usual care (UC) (P<0.04). Framingham risk scores (95% Confidence Intervals) for intervention vs UC at baseline and 10 months were: 9.3% (7.6,11.0) vs 11.1% (9.5, 12.8) and 7.8% (6.0,9.5) vs 9.8% (8.3,11.2). Intervention participants were also more likely to increase readiness to change and to enact significant health behaviors (exercise and eating behaviors) over time. The conceptual framework of the model as well as qualitative data will also be presented to explore the role of mindfulness in the intervention. A dismantling study would help determine which components of the model are most efficacious.

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Symposium #12

PREVENTING CHILDHOOD OBESITY VIA STATE-WIDE POLICY INTERVENTIONS: A FIRST GLANCE AT ARKANSAS’ ACT 1220 OF 2003

Discussant: Laura Leviton, Ph.D., Robert Wood Johnson Foundation

Obesity prevalence has increased dramatically among both adults as well as children and adolescents over the past two decades in the U.S. The recently-released IOM report on the prevention of obesity strongly suggests the pursuit of policy-level interventions. Even before the IOM report was released, many states were contemplating the implementation of school-based policy initiatives to impact on obesity among children and adolescents. Arkansas has led the nation in passing and beginning to implement state-wide legislation with a focus on curtailing child and adolescent obesity. In 2003, the Arkansas legislature and the Governor passed Act 1220, designed to implement both immediate and additional policy-based changes in future years. This symposium will overview the details of Act 1220, describe the evaluation that has been designed to evaluate the Act, and overview the baseline data which have been collected to characterize the variation of state-wide, district and school-within-district receptivity to policy interventions. The implications of the Arkansas experience for other states will be discussed.

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8:30 AM–10:00 AM
Symposium #12A

OVERVIEW OF THE EVALUATION OF ARKANSAS ACT 1220 OF 2003 TO REDUCE THE PREVALENCE OF OBESITY AMONG CHILDREN

James M. Raczynski, Ph.D.,1 Martha M. Phillips, Ph.D., M.P.H.,1 Delia S. West, Ph.D.,1 LeaVonne Pulley, Ph.D.,1 and Bursac Zoran, Ph.D.2

1Department of Health Behavior and Health Education, University of Arkansas Medical Sciences, Little Rock, AR; 2Department of Psychiatry, University of Arkansas for Medical Sciences, Little Rock, AR.

School systems are reacting to alarming obesity increases with policy changes. Arkansas became a leader in making policy changes with the passage of Act 1220 of 2003, mandating immediate statewide changes and the creation of a mechanism to effect additional future changes. Immediate changes included: removing vending machines from elementary schools; measuring body mass index (BMI); and reporting BMI to parents. Mechanisms for future years include requiring: the creation of a statewide Child Health Advisory Committee to develop additional policies; the promulgation of rules and regulations to ensure that nutrition and physical activity standards are implemented in schools; the employment of staff with expertise in community health promotion to provide support to schools and communities in the planning, implementation, and evaluation of nutrition and physical activity programs; and the establishment in each school district of an advisory committee to help raise awareness of the importance of nutrition and physical activity and assist in the development of local policies related to nutrition and physical activity in local schools. An overview of the on-going evaluation design and methods of Act 1220 will be provided, addressing: statewide survey interviewing parents and children, surveying of all school principals and superintendents, and key informant interviewing of legislators, other policy-makers and school personnel.

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Symposium #12B

TARGETING SCHOOLS FOR POLICY CHANGE: BMI AND SCHOOL CHARACTERISTICS

Martha M. Phillips, Ph.D., M.P.H.,1 Delia S. West, Ph.D.,2 Victoria S. Evans,2 and Matilda Louvring.2

1Department of Psychiatry, University of Arkansas for Medical Sciences, Little Rock, AR; and 2Department of Health Behavior/Health Education, University of Arkansas for Medical Sciences, Little Rock, AR.

The recent IOM report highlights the school as a venue for the reduction of childhood obesity. With limited resources, however, it may not be feasible to work with hundreds of schools. Knowing which schools are most likely to have more students who are at risk or overweight would help target programmatic efforts more effectively. The Arkansas Act 1220 initiative, providing BMI measurements for students in public schools throughout the state, provides a unique opportunity to assess the relationships between aggregate BMI and school characteristics (i.e., enrollment, attendance, percent minority students, percent students receiving reduced-price meals, rurality, and grades served) drawn from the NCES Common Core Data. To examine these issues, schools were categorized into quartiles by percentage of students at risk or overweight (at or above the 85th percentile of BMI for age and gender, using CDC 2000 growth charts). Logistic regression analyses indicated that schools more likely to be in the highest quartile included: middle schools (OR=6.8; 95% CI, 3.8-12.3) and high schools (OR=1.8; 95% CI, 1.2-2.8) compared to primary schools; schools in towns (OR=7.2; 95% CI, 3.2-16.1) or in rural areas (OR=3.9; 95% CI, 1.8-8.4), compared to schools in suburbs; and schools with greater percentages of minority students (OR=10.3; 95% CI, 5.2-20.5) and students in poverty (OR=1.04; 95% CI, 1.03-1.06). Additional analyses to assess relationships between school nutrition and physical activity policies and BMI status are in process and will be available for presentation as well.

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Symposium #12C

CREATING POLICY CHANGE: TARGETING SCHOOLS OR SCHOOL DISTRICTS?

Delia S. West, Ph.D.,1 LeaVonne Pulley, Ph.D.,1 Zoran Bursac, Ph.D.,2 and Martha M. Phillips, Ph.D., M.P.H.3

1Health Behavior/Education, University of Arkansas for Medical Sciences, Little Rock, AR; 2Biostatistics, University of Arkansas for Medical Sciences, Little Rock, AR; and 3Psychiatry, University of Arkansas for Medical Sciences, Little Rock, AR.

Schools are important venues in which to effect policy change to reduce the burden of childhood obesity in communities across the country. However, with limited staff resources, it may not be feasible to work individually with more than a thousand schools to effect statewide change. For some change efforts, it may be more efficient to work with superintendents, thus effecting change in several schools with a single policy than might be otherwise possible. Little is known, however, about the degree of autonomy in setting policy that may be exercised by schools within school districts, a factor that may affect the impact of global policy approaches. Through the evaluation of Arkansas’ Act 1220, each principal and superintendent within the state’s public school system was surveyed to determine key aspects of nutrition and physical activity policies. Seventy-five percent of principals and superintendents responded. Preliminary analysis of these recently-acquired data indicate that 15% of districts evidenced complete homogeneity with respect to four sentinel policies chosen for review. Additional analyses, currently being completed, will yield findings concerning: homogeneity within districts with respect to a broader range of nutrition and physical activity policies; characteristics of districts with more or less intra-district policy homogeneity; which policies may be better targets for district-level change because of intra-district homogeneity or district level control; and which policies may be better targets for school-level change because of intra-district heterogeneity or school level control.

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Symposium #13

8:30 AM–10:00 AM

ETHNICITY AND HEALTH: CONCEPTUAL AND METHODOLOGICAL ISSUES IN THE MEASUREMENT OF KEY CONSTRUCTS

Discussant: Hector Myers, Ph.D., University of California at Los Angeles

Ethnicity may be linked to health outcomes through multiple pathways, including differences in stress exposure, coping style and/or health habits. The efficient and effective accumulation of knowledge of the relationship of ethnicity to health will depend on high quality measurement. Investigators must collaborate to identify key constructs and to develop common strategies for measuring these constructs.

The papers included address measurement issues in ethnicity-related research. The first paper provides a framework for identifying and measuring ethnicity-related constructs when evaluating racial disparities in health. The second paper reviews measures of acculturation, as ethnic group differences in health are likely to be less dependent on the level of acculturation of the group members. The third paper provides an example of methods for assessing subtle ethnicity-related differences in patient preferences for types of health care treatment. Together, the papers provide insight into key constructs and measurement strategies needed to conduct research on ethnicity-related variations in health.

This symposium is sponsored by the Ethnic Minority and Multicultural Health SIG

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Symposium #13A

ETHNIC MINORITY AND MULTICULTURAL HEALTH ASSESSMENT

Lisa Sanchez-Johnsen, Ph.D.¹

¹Cancer Research Center of Hawai‘i Prevention and Control Program, University of Hawai‘i-Manoa, Honolulu, HI.

A conceptual framework is needed to advance the field of ethnic minority health assessments. One of the challenges of this field is that many authors have written about the numerous issues to consider during ethnic minority assessments, and there are several guidelines that have been proposed, all of which may result in confusion about how the issues and guidelines result in a comprehensive approach to ethnic minority and multicultural health assessment. In this presentation, a conceptual framework that can be used as part of a comprehensive and culturally proficient ethnic minority health assessment is presented. First, the usefulness of the American Psychological Association’s Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists as a general conceptual framework for guiding the assessment and evaluation of ethnic minority health assessment is emphasized. Next, the importance of conducting a systematic cultural formulation is highlighted. Finally, six cultural issues that affect the assessment and evaluation of ethnic minority health assessments are described: cultural relevance; acculturation and ethnic identity; language proficiency and bilingualism; translation of instruments and use of interpreters; selection of culturally competent assessment instruments; and the use of norms for culturally diverse individuals. The general framework, cultural formulation, and six issues all impact each other and should be considered as part of a culturally proficient ethnic minority and multicultural health assessment.

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Symposium #13B

PATIENT PREFERENCES FOR PROSTATE CANCER CARE: MEASUREMENT IN ETHNICALLY DIVERSE POPULATIONS

Sara J. Knight, Ph.D.¹,² David Latini, Ph.D.², and Mary-Margaret Chen, M.D.³

¹Departments of Psychiatry, University of California at San Francisco San Francisco VA Medical Center, San Francisco, CA; ²Department of Urology, University of California at San Francisco, San Francisco VA Medical Center, San Francisco, CA; and ³Dept. of Dermatology, University of California at San Francisco, San Francisco VA Medical Center, San Francisco, CA.

Ethnic variations in patient preferences for prostate cancer care are possible explanatory factors influencing disparities in prostate cancer treatment outcomes. Evaluation of these relationships, however, requires the validation of preference measures for use in ethnic minority populations. A series of qualitative studies were conducted to develop a measure for patient preferences for prostate cancer treatment for use in low income, African American and Caucasian men diagnosed with localized prostate cancer. Eight focused group sessions were conducted to expand the range and depth of domains of patient concerns. Participants were men from lower socioeconomic strata, diagnosed with biopsy confirmed cancer of the prostate between one and five years prior to study recruitment. Groups were homogeneous in ethnicity (i.e., African American, Caucasian, and treatment (i.e., prostatectomy, radiation therapy, watchful waiting). Moderators, ethnically matched to the groups, followed a structured outline to elicit discussion about considerations important in making decisions about prostate cancer care. Transcripts of the groups were analyzed using NVivo qualitative analysis software. Results show a range of domains important to preferences for prostate cancer care that expand upon earlier conceptual models used in measure development and suggest ethnic variation in these domains. Data support development of a preference assessment for prostate cancer care and new measures tailored according to ethnicity.

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Symposium #13C

MEASUREMENT OF ACCULTURATION IN HISPANICS

Julia Lechuga, M.A.,¹ and John S. Wiebe, Ph.D.¹

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Individuals’ responses to culture change have been used extensively to predict important psychological and health-related outcomes. Despite advances in the field, experts agree that the complex process of acculturation is still not well captured in current measures of acculturation. The purpose of the present research is to summarize the state of the field by reviewing 42 acculturation measures developed for use with Hispanic populations, presenting data on their reliability, validity, and the extent to which they have been used in previous studies. Internal consistency varied among the scales, ranging from .77 to .99. The number of papers citing each scale was retrieved through a Social Science Citation Index search. This number ranged from 0 to 354 and revealed that the Short Acculturation Scale for Hispanics (Marin et al., 1987) is to date the most widely cited scale, despite its emphasis on behavioral acculturation measurement. Domain specificity of acculturation was also investigated by examining those domains represented in current acculturation measures. Implications for development of acculturation theory will be discussed.

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Symposium #14

8:30 AM–10:00 AM

NATIONAL POLICY FOR INTEGRATED CHRONIC DISEASE PREVENTION AND MANAGEMENT STRATEGY: INDIVIDUALS, POPULATIONS, AND SYSTEMS

Discussant: Sue Curry, Ph.D., University of Illinois, Chicago

There is a growing need for the Society of Behavioral Medicine to provide leadership in health systems, policy, and advocacy issues related to chronic disease prevention and management, and the multiple behavioral risk factors central to effective strategy. Policy and advocacy have not been areas in which SBM has broad experience. The goal of the symposium is to highlight key issues and strategies in developing effective systems at the individual, population, and system levels.

The presenters will draw from experience in three countries, and compare and contrast principles and strategy across three levels for intervention and policy: the individual (clients and providers); target populations (e.g. socially disadvantaged), and service systems (state or national), to propose a vision for more integrated and effective policy to support evidence-based behavioral medicine in addressing the challenges of chronic disease prevention and management. The U.S example will focus on the complex issues of addressing multiple risk factors in primary care systems. The Australia presentation will showcase lessons learned from working with networks on socioeconomic risk factors across the lifespan. The Canadian case study will present the opportunities and challenges facing the new national Public Health Agency of Canada.

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Symposium #14A

PUBLIC POLICY AGENDA TO ADDRESS HEALTH RISK BEHAVIORS IN PRIMARY CARE

Michael G. Goldstein, M.D. 1
1Bayer Institute for Health Care Communication, West Haven, CT.

Addressing behavioral risk factors in primary care is critical due to their increasing burden on disease, healthcare costs, and public health. Risk factors include smoking, risky drinking, sedentary lifestyle, and unhealthy diet—singly or in combination. Despite effective primary-care based interventions to address these behaviors, the gap between knowledge and practice remains large.

There is a clear need to address multiple behavioral risk factors among key stakeholders, including patients, purchasers, payers, clinicians, health system leaders, and policy makers. This presentation outlines a policy agenda to address behavioral risk factors as a standard of care in healthcare delivery. Four goals of the agenda are to: Train healthcare professionals to address behavioral risk factors; create pressure on the healthcare system from outside influences (e.g., purchasers and accreditation organizations); give providers resources and accountabilities for addressing behavioral risk factors; and generate public demand for healthcare to address health behavior.

With regard to training, policy activities include IOM recommendations for an integrated medical school curriculum in the behavioral sciences along with increasing the behavioral content in licensing examinations. Diffusion of successful models of purchaser incentives for addressing behavioral risk factors is an example of policy approaches to creating outside pressures on the healthcare system. Policy initiatives to provide resources and accountabilities to front-line practitioners include changing the structure of healthcare financing to compensate treatment that focuses on long-term health needs. Increased patient demand for their healthcare to address health behavior change could be spurred by a national media campaign. Successes and challenges in these areas will be discussed.

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Symposium #14B

BUILDING CAPACITY AND ALLIANCES TO ADDRESS SOCIAL DISADVANTAGE ACROSS THE LIFE-COURSE – THE AUSTRALIAN EXPERIENCE

Brian Oldenburg, Ph.D. 1
1School of Public Health, Queensland University of Technology, Kelvin Grove, Queensland, Australia.

There is increasing recognition of the importance of the early years in determining health during childhood and adulthood. Along with the compelling evidence regarding the influence of ‘upstream’ and socioeconomic factors on adult disease and health, these are major challenges for national prevention agenda for prevention and management of chronic disease. If anything, there has been a widening of socioeconomic health disparities over the past 15 years in Australia, in relation to all-cause mortality, for both men and women. In order to reduce the preventable chronic disease burden in relation to these influences, the following steps are required: knowledge of the extent of the problem; understanding the pathways between disparities and poor health; evidence-based, effective means of prevention; a skilled workforce able to conduct research and practice across disciplines and sectors; and the political will and policy to support prevention.

While there has been some recent progress in Australia in relation to some of these steps, the gap between the evidence base and the uptake into policy and practice is still very problematic. Previous and current efforts to reduce this gap by establishing networks of policy-makers, researchers and practitioner organizations, are discussed and critically reviewed. However, it is probable that this gap will only be reduced by further prevention trials that can demonstrate cost effective approaches for reducing and managing disease, and by widespread implementation of more novel approaches to reducing socioeconomic health inequalities. Building research capacity to address social disadvantage across the life-course has also become an important priority for Australia’s major research funding agencies.

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Symposium #14C

DEVELOPING NATIONAL STRATEGY FOR INTEGRATING PUBLIC HEALTH POLICY IN CANADA

David A. Butler-Jones, M.D. 1
1Public Health Agency of Canada, Ottawa, ON, Canada.

Canada has launched an ambitious national strategy for public health by creating a new Public Health Agency of Canada and appointing its CEO the Chief Public Health Officer of Canada. The need for an integrated strategy that aligns Federal and provincial leadership for health in a collaborative model stems both from growing concerns about infectious diseases such as SARS, and from the escalating chronic disease epidemics common to all developed countries. The initiative is a concerted response to the need to rebalance emphasis on public health and prevention at a time when acute care costs are rising rapidly and the whole care system is strained.

Focussed on more effective efforts to prevent chronic diseases, like cancer and heart disease, prevent injuries and respond to public health emergencies and infectious disease outbreaks, the Public Health Agency of Canada works closely with provinces and territories to keep Canadians healthy and help reduce pressures on the health care system.

The presentation will build on major national multiple risk factor strategies in Canada with particular attention to multilevel policy issues. The specific challenges of a coordinated approach within a Federal-Provincial shared responsibility for universal health care will be described. The presentation will propose a vision for more integrated and effective national policy to support evidence-based behavioral medicine in addressing the challenges of chronic disease prevention and management.

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Symposium #15

WHERE’S THE BEEF? USERS OF BEHAVIORAL MEDICINE FINDINGS TALK TO RESEARCHERS

Jessie Gruman, PhD, 1 Conigliaro Jones, MD, 2 Gary Mixon, MPA, 3 and Marlene Dewit. 4
1Center for the Advancement of Health, Washington, DC; 2Medical Director of ECCH Eau Claire Cooperative Health Center, Columbia, SC; 3Director, Recreation and Parks Department, Sumter, SC; and 4Principal, Ebenezer Middle School, Sumter, SC.

Research questions asked – and answered – by behavioral medicine research often arise out of theory, past research or simple curiosity. It is a rare event that they are posed by those who might use evidence as the basis of program planning or implementation, should that evidence be available. Yet if we truly seek to conduct research on interventions that will be used, we need to know what the “Users” need to know. This symposium is a facilitated discussion by three community-based users of behavioral medicine research: a family doctor, a director of a Recreation and Parks Community Center, and a school principal. They will talk about a) when and why they seek research findings; b) how they use research in making a case for interventions, designing them and implementing them; c) what kinds of information they need from research that they currently cannot find; d) what questions they would like to see researchers address to facilitate the use of effective interventions; and e) what ancillary information (manuals, materials, etc.) might increase the likelihood of use. Audience interaction with panelists is invited.

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Symposium #16A

SIMPLE VS COMPLEX MATHEMATICAL MODELS APPLIED TO THE STUDY OF DAYTIME CORTISOL SLOPE

Eric Neri, B.S.,¹ Helena Kraemer, Ph.D.,¹ C. Barr Taylor, M.D.,¹ Dolores Gallagher-Thompson, Ph.D.,¹ Ruth O’Hara, Ph.D.,¹ and David Spiegel, M.D.¹

¹Psychiatry and Behavioral Sciences, Stanford University, Stanford, CA.

Hierarchical Linear Models (HLM) and Area Under the Curve (AUC) are two commonly used mathematical approaches in the study of daytime cortisol slopes. In this paper, we compare these complex models, HLM and AUC, to simpler mathematical models. Using cortisol data collected multiple times a day over consecutive days, we used SAS Proc Mixed to compute cortisol slopes assuming different covariance structures. A less complex model in the form of simple linear regression (OLS) was also used to calculate cortisol slopes and produced equivalent results to SAS Proc Mixed. In addition, simple linear regression was easier to set up and the model results were more easily interpreted. The same dataset was used to calculate AUC, which is based on the waking cortisol value and the cortisol slope. A simpler approach is to treat the waking cortisol value and the cortisol slope as separate measures. Variations in one or both of the separate measures can be overlooked when combined as AUC.

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Symposium #16B

DESIGN DECISIONS TO OPTIMIZE RELIABILITY OF DAYTIME CORTISOL SLOPES IN AN OLDER POPULATION

Helena Kraemer, Ph.D.,¹ Janine Giese-Davis, Ph.D.,¹ Maya Yutis, B.A.,¹ Eric Neri, B.S.,¹ Ruth O’Hara, Ph.D.,¹ Dolores Gallagher-Thompson, Ph.D.,¹ C. Barr Taylor, M.D.,¹ and David Spiegel, M.D.¹

¹Psychiatry and Behavioral Sciences, Stanford University, Stanford, CA.

The daytime log-cortisol slope appears to be of growing importance in studying the relationship between stress and health. How best to estimate that slope with minimal burden to the participants and the cost of the study is a decision often made without empirical foundation. Our sample’s age (N=50) averaged 62.0 years (s.d. = 11.7, range 39 - 86). Other demographics were as follows: 88% were women; 52.0% had education beyond a Bachelor’s degree, 52.0% had incomes less than $60,000 per year, 62.0% were married or living as married, 20% worked full time, 14% part time, 66% were not working or retired, 4.0% were Asian, 2.0% American Indian/Alaska Native, and 12% White Hispanic, and 80% White Non-Hispanic. Here we demonstrate in an older population that (1) assay reliability is a relatively minor issue, since one assay per saliva sample would often suffice; (2) the use of a sample obtained at wake time for each subject appears to be a preferred anchor for the slope estimate in comparison to a sample 30-minutes post-wake time; (3) self-reported times appear preferable to automatic time recording; (4) test-retest reliability of slopes, however, is not sufficiently high to base a slope estimate on one day; minimally two days and preferably three should be required.

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Symposium #16C

MODERATORS AND MEDIATORS IN UNDERSTANDING THE ROLE OF CORTISOL

Helena Kraemer, Ph.D.,¹ Dolores Gallagher-Thompson, Ph.D.,¹ Ruth O’Hara, Ph.D.,¹ C. Barr Taylor, M.D.,¹ and David Spiegel, M.D.¹

¹Psychiatry and Behavioral Sciences, Stanford University, Stanford, CA.

Traditionally, the focus of research has been on simple correlation—i.e., whether one or more variables are related to a health outcome, or on risk factors, i.e., whether one or more variables can be used to predict a health outcome. Yet true understanding of biological systems requires more—specifically it requires ways of assessing how multiple influences work together to produce or preclude a health outcome. Thus changes in cortisol level may moderate the effect of environmental or biological stress on health outcomes. Cortisol level may moderate the effect of environmental or biological stressors on health outcome. Genes (e.g., APOe4) may moderate the effect of cortisol level on health outcomes, or certain genes may be mediated by cortisol response on health outcomes. An updated methodological approach to consideration of moderation and mediation will be discussed to show how these methods relate to understanding the role of cortisol in affecting health outcomes.

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WHAT ARE CHILDREN EATING? A NATURALISTIC STUDY OF CHILDREN’S SCHOOL LUNCHES

Jennifer M. Ludrosky, M.A., 1 and Margaret O’Dougherty Wright, Ph.D. 2
1Department of Psychiatry, University of Rochester Medical Center, Rochester, NY; and 2Department of Psychology, Miami University, Oxford, OH.

This naturalistic study of the actual food habits of school-aged children explored personal, familial, and environmental factors that might contribute to the development of childhood obesity. Participants were 104 children in grades 1-8 and their parents. Assessment of BMI revealed that 23% were at risk for being overweight and 19% were overweight. The content of the children’s lunches was assessed as well as actual food eaten from the packed lunch and extra food purchased and eaten at school. While a large majority of packed lunches contained less than 1/3 of the recommended dietary reference values for calories and carbohydrates, the extra food purchased and eaten at school contributed significantly to a poorer (excess calorie, higher total fat) diet. Weight by age interactions revealed that overweight children purchased and consumed more calories and fat grams than their classmates within the older age groups (6, 7, and 8th grades). A categorical analysis of food types revealed that only a minor-calories and fat grams than their classmates within the older age groups (6, 7, and 8th grades). A categorical analysis of food types revealed that only a minor-
calories and fat grams than their classmates within the older age groups (6, 7, and 8th grades). A categorical analysis of food types revealed that only a minor-

The present study examines whether overweight children were as responsive as average weight children to a school lunch program using token reinforcement to increase fruit and vegetable consumption and preference ratings. Participants included 174 children, including 109 children of average body mass and 65 overweight children (over 85th body mass percentile). Children were randomly assigned to receive token reinforcement (holes punched into name tags) for fruit or vegetable consumption during school lunch. Consumption of fruits and vegetables was recorded by observers during four baseline meals and 12 token reinforcement meals. Preference ratings for fruits and vegetables were gathered with child interviews under baseline conditions, and under follow-up conditions two weeks and seven months after the program. Repeated-measures ANOVAs revealed that overweight and average weight children showed similar increases in fruit and vegetable consumption from baseline through token reinforcement conditions. Repeated-measures ANOVAs also showed that overweight and average weight children showed similar increases in fruit and vegetable preference ratings from baseline to follow-up conditions two weeks after the program, as well as a return to baseline preference levels seven months later, perhaps suggesting the need for ongoing program to keep preferences high. Results of the present study demonstrate that a school lunch program using token reinforcement may be used to encourage nutritional improvements in overweight children in the company of their average weight peers, rather than in special clinics or camps that single them out for intervention.

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PAPER SESSION #15 10:30 AM–12:00 PM

OVERWEIGHT CHILDREN RESPONSIVE TO SCHOOL PROGRAM FOR FRUIT AND VEGETABLE ACCEPTANCE

Helen M. Hendy, Ph.D. 1, Keith E. Williams, Ph.D. 2, Sandra Alderman, B.S. 1, Jonathan Ivy, B.S. 1, and Lisa Zimmerman, B.S. 1
1Psychology, Penn State Univ, Schuylkill Haven, PA; and 2Pediatrics, Hershey Med Ctr, Hershey, PA.

Schools are rapidly changing their policies towards food available in school environments. This study assessed the impact of school food policy changes on student lunch consumption. Two years of lunch food records were collected from students in three Houston area middle schools with about 2800 6th to 8th grade students. During the first year, no changes occurred in the school food environment. After that school year was completed, chips and dessert foods were removed from all school snack bars, and all schools received notice to enforce soda machine restrictions during meal times. Students completed approximately 7500 lunch food records identifying amount and source of food and beverage items consumed. Independent t-tests were used to document the impact of the policy change on consumption data. In general, student consumption of sweetened beverages declined and milk, calcium, vitamin A, saturated fat and sodium consumption increased after the policy change. Although overall snack chip and candy consumption did not change, the proportion consumed from the snack bar declined in year 2. However, the proportion of snack chips and candy consumed from vending increased; the number of vending machines in study schools doubled during the second year. Policy changes on foods available in school food environments can result in changes in student consumption from the targeted environments. However, if all environments do not make similar changes, compensation may occur from other sources.

CORRESPONDING AUTHOR: Karen Cullen, Dr.PH., 1 Kathy Watson, M.S. 1, Issa Zakeri, Ph.D. 1, and Katherine Ralston, Ph.D. 2
1USDA/ARS Children’s Nutrition Research Center, Baylor College of Medicine, Houston, TX; and 2Economic Research Service, USDA, Washington DC.

PAPER SESSION #15 11:06 AM–11:24 AM

SCHOOL FOOD POLICY CHANGES INFLUENCE MIDDLE SCHOOL STUDENT SCHOOL LUNCH CONSUMPTION

Karen W. Cullen, Dr.PH. 1, Kathy Watson, M.S. 1, Issa Zakeri, Ph.D. 1, and Katherine Ralston, Ph.D. 2
1USDA/ARS Children’s Nutrition Research Center, Baylor College of Medicine, Houston, TX; and 2Economic Research Service, USDA, Washington DC.

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Citation Paper
Paper Session #15  11:24 AM–11:42 AM
PARENTAL AND ENVIRONMENTAL CORRELATES OF WALKING TO SCHOOL
Dori Rosenberg, M.P.H.,1 Jacqueline Kerr, Ph.D.,1 James Sallis, Ph.D.,1 Brian Saels, Ph.D.,2 Lawrence Frank, Ph.D.,3 and Kelli Cain, M.A.1
1Department of Psychology, San Diego State University, San Diego, CA; 2Cincinnati Children’s Hospital Medical Center, Cincinnati, OH; and 3School of Community and Regional Planning, University of British Columbia, Vancouver, BC, Canada.

Less than 20% of U.S. children walk or bike (actively commute) to school, yet this is a promising strategy to increase daily physical activity. The purpose of this study was to determine whether environmental characteristics were associated with active commuting to school after including parent safety concerns, which influence travel patterns amongst youth. Data were collected from parents of 201 children (47.5% female, age range = 3 to 19 years) located in 16 neighborhoods in the Seattle region classified as high or low on walkability (land use mix, residential density, and street connectivity) as objectively measured using a Geographic Information System. Analyses were adjusted for parent education, child age, and child gender. Only 16% of children reported biking or walking to or from school 5 days per week. Children’s active commuting was higher in high walkable (25%) than low walkable neighborhoods (11%, p < .05). Street connectivity (beta = .19, p < .01) and parent concerns (beta = -.38, p < .001) were significantly associated with active commuting. Active commuting was associated with land use mix (beta = .18, p < .01) and parent concerns (beta = -.41, p < .001). Neighborhood aesthetics, walking/biking facilities, and safety from crime and traffic were not significantly related to active commuting. The neighborhood built environment, assessed objectively or self-reported, and parental concerns, were independently related to frequency of children’s walking or biking to school.

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Paper Session #16  10:30 AM–10:48 PM
RESOURCES FOR HEALTH: A RANDOMIZED TRIAL OF A CHRONIC DISEASE SELF-MANAGEMENT INTERVENTION TARGETING LOW-INCOME AND LATINO PATIENTS
Elizabeth G. Eakin, Ph.D.,1 Sheana S. Bull, Ph.D.,2 Kim Riley, M.P.H.,2 Silvia Gutierrez, M.S.,2 Patricia McLaughlin, B.A.,3 and Marina M. Reeves, Ph.D.1
1Queensland Cancer Fund, Brisbane, Australia; 2Colorado Health Outcomes Program, University of Colorado Health Sciences Center, Denver, CO; and 3Clinica Campesina Family Health Center, Denver, CO.

Despite impressive evidence on chronic disease self-management (CDSM) interventions, there remains a gap in knowledge about how to deliver these to those who bear the largest disease burden—low-income, ethnic minority, and non-English speaking patients. Resources for Health was a randomized trial that evaluated a CDSM intervention emphasizing physical activity, diet and use of multi-level supports, compared to usual care.

Two-hundred patients (78% of those eligible and contacted) with multiple chronic conditions were recruited from a Denver primary care clinic: mean age 49 ± 13, 76.5% female, 66.5% Spanish-speaking, 68% less than high school education, 61% with 5 or more chronic conditions. A bi-lingual health educator delivered the intervention in two face-to-face and three telephone sessions over six months. Data on physical activity, diet and resource use were collected by phone at baseline, 6-weeks and 6-months, using validated questionnaires. Intention to treat analysis, adjusting for gender, age, language and number of chronic conditions, found significant differences favoring the intervention in dietary behavior (Wald F2 = 4.64, p = 0.01) and resource use (Wald F2 = 8.23, p < 0.001), but not in physical activity.

This behavioral-ecologic approach to CDSM was successfully delivered to a low-income, predominantly Latino sample. Future research should evaluate the additional efforts necessary to achieve change in physical activity, as well as replication with other disadvantaged subgroups.

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Paper Session #15  11:42 AM–12:00 PM
ENVIRONMENTAL AND PSYCHO-SOCIAL FACTORS ASSOCIATED WITH WALKING TO SCHOOL IN FIFTH GRADE STUDENTS
John R. Sirard, Ph.D.,1 Ruth P. Saunders, Ph.D.,1 Kerry L. McIver, M.S.,1 and Russell R. Pate, Ph.D.1
1University of South Carolina, Columbia, SC.

Walking to school has been suggested as a way to increase children’s physical activity and decrease childhood obesity. The purpose of this study was to identify the social and physical environmental factors associated with active commuting to school in fifth grade students. Fifth graders (N=135) reported their mode of transportation to and from school each day for one week during Fall 2002. Students were categorized as Regular (≥5 walking commutes; n=8), Irregular (1-4 walking commutes; n=16), or Non active commuters (0 walking commutes; n=111). A parent/guardian of each student participant completed a self-report instrument to identify the association between the hypothesized correlates of active commuting to school and the child’s commuting behavior. Exploratory factor analysis supported the existence of five factors: family and peer support/encouragement, health- and behavior-related beliefs, commuting competence of the child, safety of the environment, and availability of pedestrian facilities. Parents of Regular active commuters reported greater availability of pedestrian facilities, support and encouragement, confidence in the child’s commuting capability, and more positive beliefs about their children walking to school compared to parents of Irregular and Non active commuters (p<0.03 all comparisons). The odds of walking to school at least once were significantly greater for students from low-income families (OR=6.98, 95% CI=1.31, 36.19) and for those receiving greater support and encouragement for walking to school (OR=1.19, 95% CI=1.05, 1.36). Additional research is needed to identify other environmental, social, and personal issues associated with walking to school in children.

Supported by PHS (NIH/NHLBI) grant #5T32-H107034
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Paper Session #16  10:48 AM–11:06 AM
MULTI-LEVEL SUPPORT AND CHRONIC DISEASE SELF-MANAGEMENT IN AN URBAN LATINO SAMPLE
Sheana S. Bull, Ph.D.,1 Elizabeth G. Eakin, Ph.D.,2 Kim Riley, M.P.H.,1 and Marina M. Reeves, Ph.D.2
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Traditionally efforts to explore and improve health behaviors among Latinos and other groups have focused on individual level interventions and have not considered the importance of support for health behaviors in the family, community and through health care systems. This study used a social-ecological framework to investigate the relationship between physical activity, nutrition and social and environmental support among a predominately Latino clinic population with chronic illness.

Data are from a baseline assessment of 200 persons (78% of those eligible and able to be contacted) from a Denver, Colorado health clinic serving primarily Latino patients. Multivariable analyses (logistic regression and general linear modeling) were used to determine the relationship between support, dietary behavior and physical activity.

Having access to multiple levels of support (e.g. family, individual and health care provider) was significantly associated with meeting physical activity guidelines and better dietary behaviors. Being female and having multiple chronic conditions were also associated with better dietary behavior. These variables explained 29% of the variance in dietary behavior in this sample.

Access to resources such as support from family, friends, community organizations and health care providers is critical to consider when undertaking assessment of or intervention for chronic disease self management.

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HEALTH CARE UTILIZATION AND QUALITY OF SELF-CARE BEHAVIORS AMONG INSURED ETHNIC MINORITIES AND CAUCASIANS WITH TYPE 2 DIABETES

Nicolette A. Vaughn, Ph.D., Tracy Sbrocco, Ph.D., Michael Feuerstein, Ph.D., M.P.H., A.B.P.P., and Robert A. Vigorsky, M.D.
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Type 2 diabetes affects 16 million Americans, disproportionately affecting ethnic minorities. In addition, ethnic minorities suffer greater morbidity and mortality with this disease. Socioeconomic status (SES) and insurance status are considered primary contributors to health disparities. Understanding of the myriad of factors contributing to health disparities requires examining insured individuals. The current study used the 1998 Medical Expenditure Panel Survey (MEPS), a national dataset, to examine health care utilization patterns and quality of care among 506 low-income, insured, ethnic minorities and Caucasians aged 21-64 with Type 2 diabetes. Based on the weightings, the 506 individuals extracted for data analyses actually represent a larger U.S. population of approximately 5 million lower income diabetics. It was expected that ethnic minorities would have fewer provider visits and lower expenditures for health care than Caucasians; indicating poorer utilization of care. Results indicated that despite having health insurance, all groups greatly underutilized care relative to current guidelines (i.e., less than 1 visit per year). There were no ethnic differences for number of prescriptions or prescription expenses. Total health services and out-of-pocket expenses for minorities were lower. The findings highlight the importance of SES, despite insurance on the amount and type of care received. One possible implication of these findings is that disparities in utilization and expenditures may be obscured at lower levels of income among patients with a chronic illness.

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PAPER SESSION #16 11:06 AM–11:24 AM

DIABETES MANAGEMENT IN SCHOOLS

Stacey Stout, M.D., Rose Alvarez-Salvat, Ph.D., Michelle Castro, B.A., Janine Sanchez, M.D., Margaret Eidson, M.D., and Alan Delamater, Ph.D.

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This study identified parental concerns about diabetes care in the school setting and assessed parents’ knowledge of federal laws applicable to diabetic children. Participants included the parents of children with diabetes who were recruited at a university-based and community-based clinic. The study sample (n=205, 92% participation rate) consisted primarily of low-income minority families (68% Hispanic and 13.9% African American). Results indicated that 77.6% of parents were unfamiliar with Section 504, 71.2% were unfamiliar with the Americans with Disabilities Act, and 89.8% were unfamiliar with IDEA. Fifty-five percent reported they did not have a written care plan for school and only 14.5% reported their child had an IEP. Fifty-three percent indicated they were “pretty much” or “very much” worried about their child’s health while at school; 6% reported their child had a seizure at school, and 39.2% had a glucagon kit at school. Forty-nine percent indicated a nurse on staff at their child's school. Fifty-nine percent indicated they were “not at all” or “a little” confident in the school’s ability to care for their child. Only 47.7% of schools allowed children to check blood glucose and 19.3% allowed insulin injections in the classroom. Fifty-four percent of parents reported they had to go to the school to take care of their child’s diabetes. These findings indicate that parents are worried about their children’s health care needs, that parents are not aware of legal resources available to them, and that many schools do not facilitate optimal diabetes care.

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PAPER SESSION #16 11:42 AM–12:00 PM

PREDICTORS OF TOTAL CUTANEOUS EXAMINATION AMONG INDIVIDUALS WITH A FAMILY HISTORY OF MELANOMA

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A total cutaneous examination (TCE), defined as a thorough and complete skin examination by a healthcare professional, may help to identify melanoma early. Evidence suggests, however, that it is not routinely obtained by individuals at increased risk due to family history of the disease. This study proposed to identify demographic, clinical, and psychological factors that predicted TCE completion among unaffected first-degree relatives of melanoma patients. In particular, we were interested in whether Protection Motivation Theory variables (perceived vulnerability, perceived severity, self-efficacy, and response efficacy) would explain differences in TCE completion. Participants (N=93, mean age = 47 years), who were primarily Caucasian (98%) and female (54%), completed baseline self-report questionnaires that measured predictor variables. Approximately 14-months later they were asked whether they had obtained a TCE during the follow-up period. Results indicated that less than half (37%) had obtained a TCE. Participants who obtained a TCE were more likely to have a college education (r=32, p=0.002), more objective risk factors (e.g., freckling; r=29, p=0.05), a past TCE (r=31, p=0.003), and a healthcare provider who recommended TCE (r=40, p<0.001) than those who had not obtained a TCE. They were also more likely to perceive themselves as more vulnerable to melanoma (r=23, p=0.03) and to perceive melanoma to be more serious (r=22, p=0.03) than those who had not obtained a TCE. These findings suggest that interventions to improve TCE completion should target the personal beliefs of at-risk individuals as well as encourage healthcare providers to recommend TCE to their patients.

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PAPER SESSION #17 10:30 AM–10:48 AM

DIABETES SELF-MANAGEMENT PRACTICES: FOCUS GROUP FINDINGS FROM PUERTO RICAN PATIENTS AND THEIR PROVIDERS

Elena Carbone, Dr.PH., R.D., L.D.N., Odilia Bermudez, Ph.D., M.P.H., L.D.N., Idali Torres, Ph.D., Milagros Rosal, Ph.D., Dawn Hefferman, R.N., M.S.N., Sally Nuener, R.N., and Patricia Sarvela.
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The high prevalence of Type 2 diabetes among Latinos, poor diabetes-related outcomes, and high costs associated with diabetes, necessitate development of effective self-management approaches for this population. This qualitative research project was developed to understand the challenges of diabetes self-management in a primarily Puerto Rican patient sample. Four focus groups were held with patients (n=38; age: 30-74 years), and one each with their primary care practitioners (n=7), and clinical care staff (n=8) at the health center where patients receive care. Patient groups were in Spanish, assessed diabetes knowledge, and identified self-management barriers and facilitators. Provider groups examined perceptions of their patients’ knowledge, attitudes, and behaviors regarding diabetes self-management. Sessions lasted 1½ - 2 hours, were audio-taped, and led by one moderator and one assistant using a facilitator’s guide. Participants acknowledged diabetes self-management challenges, identified social support as a facilitator, and viewed family as both a facilitator and potential barrier. Providers also perceived their relationship with patients as a facilitator. Patients were aware of diabetes-related complications but expressed varied understanding when defining the disease and its causes. Use of individual goal setting as a self-monitoring strategy was not understood by patients and generally not embraced by practitioners. Practice implications include reframing goal-setting as more patient-driven and group-centered, reexamining diabetes self-management programs within a family benefit context, and responding to providers’ need for training around clinical and theory-based behavior change approaches. Support: Robert Wood Johnson Foundation.

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MEDIATION OF A MIDDLE SCHOOL SKIN CANCER PREVENTION PROGRAM

Kim Reynolds, Ph.D.,1 David Buller, Ph.D.,2 Amy Yaroch, Ph.D.,3 Julie Maloy, M.S.,4 Gary Cutter, Ph.D.,4 and Guneet Kaur, M.A.1
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This study identified mediators of a school-based skin cancer prevention intervention, ‘Sunny Days Healthy Ways’ (SDHW), for middle-school children in grades 6-8. We utilized a pair-matched group-randomized pretest-posttest controlled design, with school as the unit of randomization (N=30). Ten variables (knowledge, barriers to sunscreen use, inconvenience and comfort, barriers to shade availability, perceived social norms, perceived self-efficacy, tan importance, tan attractiveness, tan desire and perceived susceptibility) were tested to establish mediation of intervention effects on changes in sun safety behavior (e.g., sunscreen use) in adolescents (N=1788), based on prediction derived from the Social Cognitive Theory (SCT) and the Theory of Planned Behavior (TPB).

Sun safe behaviors and potential mediators were measured using a validated self-report questionnaire. All four criteria for mediation proposed by MacKinnon were met for barriers to sunscreen use, perceived self-efficacy, and knowledge when these variables were tested separately. In the multiple mediator analyses, barriers to sunscreen use and perceived self-efficacy satisfied criteria 1-3 of MacKinnon, but were not statistically significant (criterion 4). Results suggest that barriers, perceived self-efficacy, and knowledge may serve as mediators on the effects of the SDHW middle-school intervention among adolescents. Further, these findings are consistent with the principles from SCT and TPB on the outcome variable. At baseline, the proportion of subjects reporting always wearing a wide-brim hat the past 5 workdays were intervention = 27%; control = 21% (NS). At 2 years, these rates were 40% and 22%, respectively (OR=2.8, p<0.0001). Hat use self-report, verified using direct observation, was found to be a valid measure. Baseline sunscreen use was 27% for intervention group and 24% for control group (NS). Sunscreen rates at 2 years were 39% and 26%, respectively (OR=2.0, p<0.0001). The intervention was successful in producing a sustained increase in our key outcomes.

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TWO-YEAR RESULTS OF A RANDOMIZED SUN SAFETY TRIAL WITH LETTER CARRIERS

Joni Mayer, Ph.D.,1 Donald Slymen, Ph.D.,2 Elizabeth Lewis, M.P.H.,3 Latrice Pichon, M.P.H.,1 Jim Sallis, Ph.D.,1 and John Elder, Ph.D., M.P.H.1
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Project SUNWISE is a randomized controlled trial to evaluate the impact of an intervention on occupational sun safety behaviors of USPS letter carriers in Southern California. 70 postal stations were randomly assigned to intervention or control conditions. All letter carriers at intervention stations received a 2 year intervention consisting of free sunscreen and wide-brim hats, prompts, and 6 brief education sessions. Evaluation cohorts were measured using questionnaires (68% consent rate). This paper reports results of the 2 year followup. Subjects (N=2,499) had a mean age of 43; 31% were women; and the sample was 51% white, 19% Latino, 12% Asian, 8% African-American, 4% Pacific Islander, and 4% other. For each outcome, generalized linear mixed models were used treating measurement timepoints as a set of repeated measures; analyses are adjusted for clustering by postal station. Sunscreen rates were associated with the development of sun protection behaviors: 26% for control group (NS). Sunscreen rates at 2 years were 39% and 26%, respectively (OR=2.0, p<0.0001). Sunscreen use was 27% for intervention group and 24% for control group (NS). Sunscreen rates at 2 years were 39% and 26%, respectively.

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DIRECT OBSERVATIONAL MEASURE OF SUN PROTECTION PRACTICES AMONG BEACHGOERS

Jay E. Maddock, Ph.D.,1 David L. O’Riordan, Ph.D.,2 Kevin Lunde,2 and Alana Steffen, Ph.D.2
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Skin cancer is the most prevalent form of cancer in the United States and is rising rapidly, however most skin cancers are preventable. Compared to self-report, direct observational methodologies could be a more valid and reliable form of behavioral measurement for settings-based interventions. A systematic observational system for assessing sun protective behaviors among beachgoers was developed. Data was collected by two raters over three days using momentary ecological sampling methods. Individuals in a representative zone were assessed for head wear, upper body wear, sunglasses use, shade use and gender. The two observers made a total of 3,406 person-observations. Inter-rater reliability ranged from 0.77-0.99. Overall, sun protection was low with males covering an average of 22.7% of their upper bodies and females covering 38.2%. Hats, sunglasses, shirts and shade were all used by less than 30% of the population. Sun protection behaviors varied by time of day and cloud cover. A reliable, observational measurement showed low levels of sun protection practices among beachgoers. This assessment, coupled with detailed information regarding sunscreen use will provide a complete assessment of a population’s sun protection. Recommendations include the need for social-ecological interventions to increase sun protection among beachgoers.

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WAS THERE A DOSE-RESPONSE EFFECT WITH A SUN SAFETY INTERVENTION FOR LETTER CARRIERS?

Elizabeth C. Lewis, M.P.H.,1 Latrice C. Pichon, M.P.H.,1 and Joni A. Mayer, Ph.D.1
1Graduate School of Public Health, San Diego State University, San Diego, CA. Letter carriers work outdoors approximately 4 hours/day and therefore need effective sun safety interventions. Project Sunwise, a 2-group randomized controlled trial, conducted 6 brief educational sessions as part of a multi-component program at 35 postal stations over 2 years. The purpose of this analysis was to assess the relationship between number of sessions attended (0-6) and hat/sunscreen use. As part of an ongoing study, carriers assigned to the intervention group were administered survey items evaluating specific components of the intervention and frequency of occupational sun safety behaviors; 925 subjects completed surveys regarding all 6 sessions. The hat use variable was validated via observations of carriers on their routes. Carriers were primarily male (71%) and many were non-White (53%). Overall, the education sessions were well-attended (mean=5.2; st. dev.=1.1). Hat and sunscreen use were measured using 5 categories, from never use to always use. T-tests revealed participants reporting they always used hats had significantly higher attendance rates than those reporting they used hats less than always (p<.001). Similar patterns were found for sunscreen (p<.05). The educational sessions seem to be an effective component of the intervention package. Exposure to the sessions was associated with the desired effects—hat and sunscreen use.

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Paper Session #18 10:30 AM–10:48 PM

COMPARISON OF WEIGHT LOSS INTERVENTIONS IN A PRIMARY CARE SETTING: A PILOT INVESTIGATION
Jeffrey L. Goodie, Ph.D.,¹ Christine L. Hunter, Ph.D.,¹ Christopher M. Hunter, Ph.D.,¹ Thomas McKnight, M.D.,² Karen LeRoy, R.N.,¹ and Alan L. Peterson, Ph.D.¹
¹Department of Psychology, Wilford Hall Medical Center, San Antonio, TX; and ²Due West Family Medicine, Due West, SC.

The present study used a two-group design comparing a minimal contact (MC) to an enhanced care (EC) weight loss intervention in a primary care setting. Health Care Providers administering the MC intervention encouraged participants to lose weight using their typical referral resources or advice. Providers administering the EC intervention encouraged participants to lose weight following structured guidance founded on NHLBI guidelines. All participants were asked to follow-up monthly for 6 months, and were contacted approximately 1-year after starting the study to report their weight. Fifty-nine individuals (45 women; age M=51.7 yrs) with a BMI ≥ 26 returned for the follow-up appointment. Individuals in the EC group attended significantly more follow-up appointments (M=3.4) than those in the MC group (M=2.11). A repeated-measures ANOVA, examining data from participants available at the 1-year follow-up (EC N=24; MC N=13), revealed no significant difference between the amount of weight lost in each group, but did reveal an overall significant difference between the initial session and the 1-year follow-up weights (F=15.32, p<.001). After 1-year, participants in the EC group had lost a statistically significant amount of weight [M=11.1 lbs; SD=9.3; p<.01]; however, MC group participants had not lost a statistically significant amount of weight [M=10.3 lbs, SD=19.2]. These data suggest that targeting weight in a primary care environment may result in sustained weight loss and evidenced-based weight loss is feasible in a primary care clinic.

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Paper Session #18 10:48 AM–11:06 AM

CANCER PREVENTION IN PRIMARY CARE: PREDICTING PATIENT COUNSELING IN 4 RISK BEHAVIORS
Judith DePue, Ed.D.,¹ Michael Goldstein, M.D.,¹,² Wayne Velicer, Ph.D.,¹ Colleen Redding, Ph.D.,¹ Joseph Fava, Ph.D.,¹ Xiaowu Sun, Ph.D.,¹ and Rakowski William, Ph.D.¹
¹Miriam Hospital/Brown University; ²Bayer Institute; ³University of Rhode Island; ⁴Quality Metric; and ⁵Brown University.

Primary care clinicians have opportunities to talk with patients about many health behaviors, but little data exists about how counseling might vary across behaviors. We surveyed 3557 managed care patients, at baseline and 24-months, who were at risk for one or more of four cancer risk behaviors: smoking, diet, sun protection, &/or mammography screening. We surveyed data from participants available at the 1-year follow-up (EC N=24; MC N=13). We found no significant difference between the baseline and 1-year follow-up weights (M=15.32, p=.001). After 1-year, participants who were at risk for one or more of four cancer risk behaviors: smoking, diet, sun protection, &/or mammography screening, and who had at least one office visit in the past year. Patients reported on receipt of 4-A’s (Ask, Advise, Assist, Arrange follow-up) and responses were weighted and combined to reflect counseling intensity (Ask=1, Advise=2, Assist=3, Arrange=4) for each target behavior. A series of linear regression models, using SAS Proc Mixed, controlling for office clustering effects, examined baseline patient and office predictors of counseling over 24 months. Significant predictors with smokers (n=625) were age, education, number of office visits in past year, satisfaction with care; for patients with high fat diet (n=2023): number of office visits, physician specialty, perceived health, BMI, dietary behavior score, prior MD advice on dietary fat; for sun protection counseling (n=2285): prior MD advice on sun protection, sun protection behavioral score, satisfaction with care, and receipt of tailored report at home; and for counseling on mammography (n=652): previously offered schedule for mammography, at risk with high fat diet, BMI, number of office visits, and satisfaction with care. Perceived risk-related variables, patient satisfaction, and more office visits were predictive of intensity of counseling across behaviors.

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Paper Session #18 11:06 AM–11:24 AM

CHANGING PRIMARY CARE PROVIDERS COLONOSCOPY SCREENING RECOMMENDATIONS: TRIAL RESULTS
Sherri N. Sheinfeld Gorin, Ph.D.,¹ and NYPAC.¹
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Physician recommendation is central to colorectal cancer screening. Traditional educational approaches to changing physician screening behavior have been unsuccessful. The aim of this study is to assess the effects of “academic detailing,” a novel, brief, office-based intervention designed to change physicians’ colorectal cancer screening practices, relative to a service-as-usual control. In-person interviews were conducted at baseline, 6- and 12-months with primary care physicians (PCP’s, N=164) who were stratified by the income and ethnic/racial characteristics they practice communities, and assigned at random to one of two study arms. Questionnaire items were derived from Social Cognitive Theory and the Theory of Reasoned Action, and demonstrated satisfactory psychometric properties. The results of a repeated measures ANOVA at 12-month follow-up showed statistically significant intervention effects for increased colonoscopy screening (intervention, pre-test=68.02, post-test=82.97; control, pre-test=69.07, post-test=75.79; p=.03). There were no statistically significant effects of the intervention on other CRC screening approaches. The findings from a hierarchical multilevel logistic regression analysis of the periodic use of colonoscopy similarly revealed that the intervention had a statistically significant effect on PCP’s screening recommendations (OR=5.20, p=.03). Primary care physicians were more likely to recommend CRC screening at post-test if they screened a larger percentage of eligible patients at post-test (p=.14, p<.001). A current cost-effectiveness analysis suggests that academic detailing compares favorably with other interventions designed to increase cancer screening rates. The findings suggest promise for the academic detailing intervention in increasing colonoscopy screening recommendations, particularly among physicians in underserved areas.

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Paper Session #18 11:24 AM–11:42 AM

TRANSLATION OF A GROUP COGNITIVE-Behavioral Psychotherapy (CBT) DEPRESSION PREVENTION INTERVENTION INTO A PRIMARY CARE MODEL
Benjamin W. Van Voorhees, M.D., M.P.H.,¹ and Justin M. Ellis.¹
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Purpose: To translate a depression prevention intervention from a study setting into a combined primary care/Web-based model addressing key dissemination barriers: (1) loss of fidelity, (2) poor motivation, (3) lack of cultural acceptability, and (4) high costs.

Study Sample: We used a multi-disciplinary “translation group” including investigators (primary care physicians, psychiatrists and psychologists), and lay persons (14 late adolescent, 7 nonwhite, 7 male, mean age, 20 years, recruited from two urban clinics).

Study Measures: Semi-quantitative/qualitative assessment of intervention development with regard to the four dissemination barriers.

Study Design: This is a multi-step intervention development study: (1) initial translation, (2) serial fidelity reviews (multidisciplinary team), (3) cultural review (adolescent evaluators), and (4) cost review.

Results: The final intervention includes an initial motivational interview (MI) in primary care, eleven Web-based modules based on CBT (behavioral activation, counter pessimistic thinking), and Interpersonal Psychotherapy (activate social network, strengthen relationship skills), and a follow-up MI in primary care. Fidelity reviews were satisfactory. Adolescent motivational themes included: (1) importance of reducing risk, (2) intervention coherence and effectiveness, (3) building resiliency and (4) altruism. With regard to cultural acceptability, the “every-day” language suggested to some adolescents that the intervention was “too simple” to work (lack of cultural authority). Adolescents were willing to pay a mean of $20.63 for the intervention (excluding costs). A current cost-effectiveness analysis suggests that the intervention is cost-effective with regard to the four dissemination barriers.

Conclusions: Complex preventive interventions for depression can be translated into the community settings. However, fidelity, cultural acceptability and authority and motivational concerns must be balanced to ensure maximum perceived utility.

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INNOVATIVE WEB-BASED PROGRAM TRANSLATES SMOKING CESSION INTO ACTION STEPS FOR PRIMARY CARE

Cecelia A. Gaffney, M.Ed.,1 Cathy L. Melvin, Ph.D., M.P.H.,2 and C. Tracy Orleans, Ph.D.3

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Moderate increases in likelihood of successful implementation of evidence-based interventions (EBI) into primary care practices have resulted from on-site training. Models have used person-to-person training, such as academic detailing, train-the-trainer and learning collaboratives. Unlike these models, our program facilitates practice wide training and systems change through on-line, self-administered learning. “Smoking Cession for Pregnancy and Beyond: Learn Proven Skills to Help Your Patients Quit” is a multimedia program offering case simulations and discussions, mini-lectures, patient interviews, tools for changing office systems and web resources. Varied components accommodate different learning styles. Individual learning occurs at each person’s convenience and pace rather than requiring the entire staff to meet to a group. Clinicians, nurses and social workers can earn continuing education credits.

Six rural primary care practices in New England participated in a study of the impact of completing the program on clinician skills and office system changes. Patient reported smoking status assessment (82%), counseling (64%) and follow-up (22%) were consistent with clinician self-reported behavior. Chart review found documentation in the visit notes (48%) the most common method, followed by the problem list (28%). Three-quarters of staff/clinicians report the program contained enough information to implement evidence-based smoking cessation in their practice. Findings from three-month follow-up data show how well practice-based changes have been implemented. A demonstration of the program components and how it can be used to provide practice-wide training to implement evidence-based smoking cessation counseling will be provided.

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DEPRESSIVE SYMPTOMS IN HEPATITIS PATIENTS UNDERGOING ANTIVIRAL TREATMENT

Judith B. Chapman, Ph.D.,1 Cassandra L. Lehman, Ph.D.,2 and Robert G. Hall, Ph.D.1

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Interferon (IFN), the mainstay of antiviral treatment for the Hepatitis C Virus (HCV), has been strongly associated with depressive symptoms. This study examines whether there may be a critical period during treatment in which depression is more likely to worsen. One hundred seventy-seven HCV+ veterans participated in this study (M=50.8 years; 98.3% male). Baseline scores on the Beck Depression Inventory (BDI) were compared with each assessment point (treatment weeks 2, 4, and 12/ monthly until completed). A depressive disorder was the primary pretreatment psychiatric diagnosis for 20.9% of this sample; most patients were asymptomatic for depression at baseline (M=3.38, SD=7.64). Recommended IFN treatment length varied from 48 weeks for genotype I patients (71%) to 24 weeks for genotypes 2 and 3 (29%). Fifty-eight percent of participants were on treatment and 55% of this group completed a full course of treatment. Significantly lower BDI scores were reported by patients who started treatment (t(173)=2.02, p<.05), however there was no relationship between BDI score and treatment completers. For the treatment sample, BDI scores were significantly higher than baseline throughout the first six months of treatment (t(49), p<.001, Bonferroni correction). However when the data for genotype I patients alone were examined, only the period between weeks 4 and 16 of treatment revealed significantly higher scores. Results suggest that for a majority of IFN treatment patients, there may be a period of increased vulnerability to depression in the early phase of treatment.

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Paper Session #19 11:24 AM–11:42 AM
REDUCTIONS IN DENIAL MEDIATE DECREASES IN DEPRESSED MOOD DURING COGNITIVE BEHAVIORAL STRESS MANAGEMENT WITH HIV-INFECTED GAY MEN ON HAART
Adam W. Carrico, M.S.,1 Michael H. Antoni, Ph.D.,1,2 Ron E. Duran, Ph.D.,1 Gail Ironson, M.D., Ph.D.,1,2 and Neil Schneiderman, Ph.D.1,2,3
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We examined Cognitive Behavioral Stress Management (CBSM) effects on depressed mood (Profile of Mood States; POMS), avoidant coping (COPE), and self-reported adherence in 130 HIV-infected gay men prescribed Highly Active Anti-Retroviral Therapy (HAART). All participants received Medication Adherence Training (MAT) three times, and were randomized to CBSM+MAT or MAT-Only. Using a mixed-model methodology, a significant group x time interaction for depressed mood (t (87) = -2.73, p < .01) was observed. CBSM+MAT reported significant reductions in depressed mood (p < .05), while MAT-Only reported no change (p > .10). For avoidant-oriented coping, we observed a significant group x time interaction for denial (t (89) = -2.07, p < .05) but not for behavioral disengagement (p > .10). CBSM+MAT reported significant decreases in denial (p < .01), while MAT-Only reported no change (p > .10). No intervention-related changes in medication adherence were observed (p > .10). Both groups reported adherence rates of approximately 90 percent throughout the 12 weeks. A path model specified the inter-relationships among denial, depressed mood, and group assignment [Chi-Square (1) = 0.37, p = .54; CFI = 1.0; RMSEA < .001; SRMR = .013]. More denial at baseline predicted less depressed mood at 10 weeks (t = -2.07, p < .05). CBSM+MAT-related reductions in denial mediated decreases in depressed mood (Chi-Square Change = 2.67). Denial may be effective for short-term distress reduction, but CBSM+MAT decreases depressed mood by reducing reliance on denial.

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Paper Session #20 1:30 PM–1:48 PM
SEXUAL RISK REDUCTION IN ZAMBIAN HIV+ WOMEN: NOW AND PARTNER PROJECTS
Deborah Jones, Ph.D.,1 Danielle Ross, B.A.,1 Stephen M. Weiss, Ph.D.,2 Ganapati Bhat, M.D.,1 Nadshi Chitalu, M.D.,2 and Violet Bwaya, L.P.N.,2
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Two studies of Zambian HIV+ women examined long term effects of 1) 3-session group cognitive behavioral sexual risk reduction intervention (New Opportunities for Women, NOW) and 2) NOW intervention plus men (Partner). Outcome included psychosocial (self-efficacy) and behavioral (sexual behavior, risk reduction strategies). Data and preliminary data were drawn from NOW (n = 250) and Partner Projects (n = 180). NOW participants (M age = 29, educ = 6 yrs) were randomized to high group or low individual interventions; Partner participants included men (M age = 37, educ = 12 yrs) and women (M age = 31, educ = 6 yrs) in high and low intensity groups.

Assessments were at baseline, 6, and 12 months. NOW participants increased consistent protected sex over time (44 to 66%, F = 14.5, p = .001). Compared with individuals, NOW group participants decreased sexual risk behavior (F = 3.21, p = .004); acceptability predicted use and self-efficacy increased (F = 7.62, p = .006). Among Partner participants, sexual risk behavior decreased (F = 6.42, p = .003). Comparatively, sexual risk was lowest among Partner participants, then NOW group and individuals (F = 7.46, p = .007) at follow-up. Risk reduction and avoidance among Partner participants predicted decreased risk behavior (F = 5.75, p < .05).

Group skills in combination with male partner participation may enhance safer sexual behavior among this population. Findings highlight the need to include both sexual partners in safer sex interventions.

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Paper Session #20 1:48 PM–2:06 PM
CHILDHOOD SEXUAL ABUSE AND SEXUAL RISK BEHAVIOR AMONG PATIENTS AT A STD CLINIC
Theresa E. Senn, Ph.D.,1 Michael P. Carey, Ph.D.,1 Peter A. Vanable, Ph.D.,1 Patricia Coury-Doniger, F.N.P.C.,1 Marguerite Urban, M.D.,2 and Dianne Morrisson-Beedy, Ph.D.2
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The consequences of childhood sexual abuse (CSA) remain poorly understood. Whereas some studies found an association between CSA and subsequent sexual risk behavior, a recent meta-analysis suggested that most respondents report no lasting negative effects. However, much of the research sampled college students who tend to be high-functioning. To clarify the CSA-risk behavior association, research needs to investigate CSA effects in more vulnerable populations.

The present study investigated whether patients at a sexually transmitted disease (STD) clinic who were sexually abused during childhood differed in sexual risk behavior compared to patients who were not sexually abused. Patients (N = 406; 41% female; 63% African-American) completed questions about past CSA experiences and current sexual behavior (the number of unprotected acts of vaginal or anal intercourse in the past 3 months). Participants who reported penetrative sex before the age of 17 with someone significantly older, or who were forced to have penetrative sex before age 17 were considered sexually abused. Two important results were obtained. First, 49% of all STD clinic patients reported a CSA experience. This rate is much higher than rates reported from college student samples. Second, an ANOVA with abuse, gender, and abuse-by-gender as independent variables revealed a main effect of abuse (p < .05) on frequency of unprotected intercourse; individuals who were sexually abused reported more frequent unprotected intercourse. We conclude that targeted STD prevention programs should be developed for these individuals.

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Paper Session #19 11:42 AM–12:00 PM
COMPARATIVE OUTCOME TRIAL OF TELEPHONE ADMINISTERED PSYCHOTHERAPIES FOR DEPRESSION
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Objective: Many patients experience barriers to receiving psychotherapy for depression, including disabilities, transportation problems, and residence in a rural area. A validated telephone-administered form of psychotherapy would reduce barriers to treatment in mobility-impaired patients. This trial compared individual telephone-administered cognitive-behavioral therapy (T-CBT) to individual telephone-administered supportive emotion-focused therapy (T-SEFT) for treatment of depression in multiple sclerosis (MS) patients.

Methods: 127 MS patients with depression and functional impairment were randomly assigned to 16 weeks of T-CBT or T-SEFT. Outcomes included the BDI, Hamilton Rating Scale for Depression (HRSD), SCID diagnosis of major depressive disorder (MDD), and positive affect (PANAS) at baseline, week-8, post-treatment, and 3-month follow-up.

Results: Attrition was 5.5% (3 from T-CBT, 4 from T-SEFT). Depression improved across both treatments (p<0.0001). T-CBT patients showed greater improvements at post-treatment, compared to T-SEFT, on the SCID-MDD (p=0.019), HRSD, (p=0.026), and positive affect (p=0.0091). No significant differences emerged across treatments on the BDI (p=0.78). From post treatment to follow-up, there were no significant changes and no significant differences across treatments on any measures (p>0.05).

Discussion: Telephone psychotherapy was highly effective for depression and produced unusually low rates of attrition. T-CBT may be more effective on objective outcomes and avoidance among Partner participants predicted decreased risk behavior (F = 3.75, p < .05).

Group skills in combination with male partner participation may enhance safer sexual behavior among this population. Findings highlight the need to include both sexual partners in safer sex interventions.

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IMPACT OF PHYSICAL AND SEXUAL VIOLENCE ON RISK WOMEN’S RISK FACTORS

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Violence against women has become a major public health issue and can impact women’s risky behavior. The purpose of this study was to compare women with no violence (NV) to women who experienced both sexual and physical abuse (SPA), those who experienced sexual abuse only (SAO), and those who experienced physical abuse only (PAO) concerning various risk factors. The sample was 539 women from an STD clinic. The mean age was 25 years, with 84% African American, 48% employed, 82% single, 43% reported experiencing violence, and 25% reported this was their first time at the clinic.

Logistic regression analyses were used to compare the NV group to the three violence groups. This study found that the SPA group was older. Less likely to be employed, had more lifetime partners, been in more fights, more likely to use alcohol/drugs before sex, and had more one night stands than the NV group. Results demonstrated that SAO group were older, had more lifetime partners, and had more one night stands than the NV group. Lastly, the PAO group, had been in more fights, was less likely to use a condom during last sexual encounter, and had more one night stands than the NV group.

These findings indicated women who experience violence regardless of type exhibited more risk behaviors and those who experienced both sexual and physical violence engaged in the most risk behaviors. These results demonstrated that women attending STD clinics could benefit from violence screening and counseling to help decrease their subsequent risky sexual behavior.

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ARE MONETARY INCENTIVES NECESSARY TO RECRUIT PATIENTS FROM A STD CLINIC TO A SEXUAL RISK REDUCTION WORKSHOP?

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Evidence indicates that patients with a STD can benefit from sexual risk reduction workshops. However, many patients do not attend such workshops when invited. This study evaluated the effects of a financial incentive on attendance at a risk reduction workshop tailored to patients at a STD clinic. A quasi-experimental design with two conditions (incentive vs. no incentive) was implemented sequentially with 107 STD clinic patients reporting risky sexual behavior. Attendance at a sexual risk reduction workshop was the key outcome. Results indicated that participants provided with a cash incentive were more likely to attend the risk reduction workshop than participants who were not offered an incentive (38% vs. 9%; χ²(1) = 12.88, p < .001). Hierarchical logistic regression demonstrated that an incentive predicted group attendance after controlling for other variables associated with attendance. In this model, employment status (AOR = 3.04, p < .05), age (AOR = 1.07, p < .05) and incentive (AOR = 7.59, p < .001) were associated with likelihood of attending groups, with individuals who were unemployed, were older, and received an incentive more likely to attend. Providing incentives to patients to do what is in their best interest is a complex issue that warrants further investigation. By providing data on this topic, scientists can help to inform the discussion among policy makers, health care providers, and tax payers so that the public health can be protected and improved.

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SEXUAL RISK REDUCTION: HIV POSITIVE AND NEGATIVE MONOILINGUAL SPANISH SPEAKING WOMEN

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This study examines a culturally sensitive sexual risk reduction intervention for HIV positive and negative monolingual Spanish speaking women. Cultural and linguistic translation of this study addressed cultural issues influencing initiation, maintenance and acceptability of sexual barriers, e.g., attitudes and beliefs, prior experience, willingness to use products, partner preference, and level of acculturation to host culture. Women (n = 87, n = 32 HIV+) were randomly assigned to an experimental (group cognitive behavioral safer sex skills training) or control condition (individual health education). Participants were South American (34%), Central American (33%), Caribbean (29%), and other (5%); age (M = 45±12.5), age at immigration to the US (M = 30±13.4).

Assessments were at baseline, 6 and 12 months. The Behavioral Acculturation Scale (BAS) assessed behaviors and daily customs representing acculturation to America, range of 115-23 represents maximum to minimum acculturation. BAS score for participants was M = 45.1±18.30, range = 24 to 101; BAS was correlated with the Biculturalization questionnaire, Americanism scale (r = 0.79, p < .001) and Hispanicism scale (r = -0.56, p < .001). Baseline, 26% of participants reported never having used male condoms during sexual intercourse and 81% reported never having used female condoms; no difference in acculturation of participants regarding experience using male condoms (F(1,75)=1.45, p = .23). Participants reporting no female condom use had lower BAS scores (F(1,75)=4.35, p = .04). Acculturation is a factor in exposure to female-controlled sexual barrier products. Culturally appropriate interventions are needed to introduce products to less acculturated women.

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FACTORS AFFECTING DECISION-MAKING REGARDING REPRODUCTIVE GENETIC TESTING: A SYSTEMATIC REVIEW

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Purpose: To present the factors, identified through a systematic literature review, affecting individuals’ decision to undergo reproductive genetic testing (including carrier screening and prenatal diagnosis).

Background and Theoretical Framework: Advances in Genomic Medicine are leading to increasingly complex reproductive decisions. Identifying factors associated with individuals’ choice to undergo genetic testing may facilitate the delivery of high-quality evidence-based genetic services. Most health behavior theories highlight the role that intra-personal factors (beliefs and values) play in decisions to undergo screening.

Method: Six databases were searched using the terms: decision-making, genetic(s), re-production, testing, screening, and prenatal. Twenty-three studies met the authors’ inclusion and exclusion criteria. Data were abstracted using the Matrix Method for systematic reviews. Each study also was rated for its methodological quality.

Results: The most common factors affecting reproductive genetic testing included: need for reassurance (found in 21.7% of studies), advanced maternal age (17.4%), knowledge of disease (13.0%), family history (13.0%), and religious affiliation (13.0%). Less frequent factors included physician’s suggestions, attitudes of genetic counselors, gender, pro-life position, socioeconomic status, self-image, desire for children, exposure to disabled children, accessibility to prenatal diagnosis, and fear of miscarriage. Studies’ methodological quality ranged from 9 to 20 (mean = 14.4).

Conclusion: While the methodological quality of this body of knowledge still warrants improvement, our findings have significant implications for practice. Many of the factors identified in the review are amenable to change through health education and/or counseling. Providers dealing with reproductive testing would do well to understand these factors and take action—when appropriate - work alongside genetic counselors and health educators to optimally assist clients in their decision-making.

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Paper Session #21 1:48 PM–2:06 PM

A CONCEPTUAL FRAMEWORK FOR DECISION-MAKING ABOUT PRENATAL GENETIC TESTING
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An important goal of genetic counseling is to facilitate client informed choices about prenatal diagnostic testing. Informed choices are based on an understanding of quality information that are consistent with the decision-maker’s attitudes. Ideal outcomes of informed choices are high decisional quality, including satisfaction and control. Yet, how best to achieve these outcomes remains an area of active research. Recently, Lancet published a study claiming that all women, regardless of a priori risk status, should be offered invasive prenatal testing. Using subjective utility theory to frame the question about how women decide to undergo prenatal testing, the investigators demonstrated that overall women place much higher value on detection of a condition than on the chances for losing the pregnancy and thereby concluding that quality of decisions would be high. Although utility models capture some of the important ways that individuals weigh the risks and benefits of genetic testing, they are insufficient at identifying emotional contributions to such decisions. Several different theoretical models may be used to study decisions about genetic testing, including subjective utility theory, the theory of planned behavior, self-regulation theory, and social cognitive theory. The limits and promise of each will be discussed, including outcomes beyond the decision itself. An argument will be made use of a decision-making model that includes the construct of anticipated affect and can be used to frame research questions about prenatal decision-making, and to guide clinical practice and training in the meantime.

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Paper Session #21 2:06 PM–2:24 PM

PARALLEL NARRATIVES: FAMILY DEVELOPMENT AND HEREDITARY DISEASE
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This study addresses the meaning of hereditary cancer for families by contextualizing the process of receiving and integrating genetic information into family narratives about sickness and health. Empirical and clinical literature (e.g., Brower-DudokdeWit, Rolland) suggest a temporal thread running through family understandings of hereditary disease, linking past experiences to current beliefs about vulnerability and plans for the future. Genetic testing yields information about a family bloodline, providing a powerful tool to recast the meaning of family experiences with illness over many generations. This has enormous consequences for individual and family health and reproductive decision-making. The cohort of interest here is the first generation of women to face nodal life cycle decisions about partnering and family planning that incorporate family legacies with illness and genetic information.

This study aims to (1) elicit personal meanings about genetic knowledge; (2) identify how these patterns of meaning are connected to family illness legacies; and (3) enhance our understanding of how these meanings are integrated into master life plans. Women aged 21-35 who carry a BRCA1 or BRCA2 mutation completed an illness genogram and were interviewed using open-ended questioning. Interview transcripts were analyzed using the Listening Guide Method pioneered by Gilligan (2003), which emphasizes the use of voice to highlight key themes, relationships, and meaning structures. Preliminary results reveal a persistent tension between themes of agency versus fate, parallel narratives about family and illness trajectories, and a range of metaphors used to describe genetic status. Knowledge gained from this study will aid health professionals in devising and implementing psychoeducational interventions at key points in the illness experience.

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Paper Session #21 2:24 PM–2:42 PM

WOMEN WITH HIGHER LEVELS OF SOCIAL CONSTRAINTS ABOUT BREAST CANCER RETAIN LESS INFORMATION AFTER GENETIC COUNSELING
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The central purpose of genetic counseling for women with family histories of breast cancer is to improve their knowledge about the disease and its genetic transmission. Since emotional expression in talking about stressful life events can affect both emotional and cognitive processes, we hypothesized that: 1) women with high levels of social constraints (perceived social barriers to expressing their emotions about breast cancer concerns) will benefit less from genetic counseling, and 2) that this effect will be mediated by their higher levels of intrusive thoughts about cancer (IES). Women (n=169) with strong family histories of breast cancer completed the IES and a social constraint measure approximately two weeks before their counseling. They completed a breast cancer knowledge questionnaire at that time and again approximately four weeks after their counseling. Results indicated that: 1) women with higher levels of social constraints had smaller improvements in knowledge and they had higher levels of intrusive thoughts (p<.01); 2) higher levels of intrusive thoughts were associated with smaller improvements in knowledge (p<.01); and 3) social constraints were no longer significantly related to increases in breast cancer knowledge when intrusive thoughts was entered into the equation (p=0.8). Findings indicate the importance of psychological factors to the effectiveness of counseling and suggest that interventions facilitating emotional expression may increase retention of complex genetic information.

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Paper Session #21 2:42 PM–3:00 PM

RESULTS OF A RANDOMIZED STUDY OF TELEPHONE VERSUS IN-PERSON BREAST CANCER RISK COUNSELING
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Women of all risk levels have reported high interest in obtaining genetic testing for breast cancer risk. Breast cancer risk counseling may help women to learn about their risk and appropriate use of testing. This study tested the effects of an in-person versus telephone intervention, compared to a control group, in a population-based sample. Participants were 340 women, recruited through a network of primary care physicians. They received a baseline questionnaire in the mail, were randomized to one of the three study arms, and completed a follow-up survey three months later. Both types of counseling were very well received. Both counseling conditions significantly decreased women’s risk perceptions and intentions to pursue genetic testing. Telereview three months later. Both types of counseling were very well received. Both counseling conditions significantly decreased women’s risk perceptions and intentions to pursue genetic testing. Compared to control. The control group increased risk perception from 29.54 to 30.68, whereas the in-person intervention group decreased from 30.44 to 20.15 and the telephone intervention group decreased from 29.53 to 20.89 (p<0.01). Having a family history and a higher Gail risk score resulted in more reduction in risk perception. In the control group the testing intentions score increased from 2.20 to 2.71, while the in-person intervention score decreased from 2.53 to 1.62, and the telephone intervention score decreased from 2.24 to 1.72 (p<0.001). We can use these methods of counseling to reduce interest in genetic testing in low risk women.

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MEDIATING AND DIRECT EFFECTS OF PAIN ON WELL-BEING OF OLDER ADULTS WITH OSTEOARTHRITIS

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A variety of psychological variables contribute to well-being for those with chronic illnesses such as osteoarthritis (OA). This study assessed the relationship of social relations, coping effectiveness and pain perceptions to life satisfaction and depressive symptoms for 95 older adults with OA. Specifically, we investigated whether pain mediated the relationship of social support, social strain, or coping effectiveness to well-being. Computer-administered surveys of volunteers (72% female, 49% married/partnered, age range 60-85 years) who self-reported having OA generated the data. Regression analyses controlled for age, income and marital status and indicated different patterns of association depending on the outcome addressed. Pain partially mediated the association of social support to life satisfaction (Sobel test p<.09). In contrast, pain did not mediate any variables in association with depressive symptoms. Instead, higher coping effectiveness, lower social strain and lower pain were all directly associated with lower depressive symptoms. The models explained 32% of the variance in life satisfaction and 42% of the variance in depressive symptoms. Results indicate that pain is the most important measured variable for determining participants’ overall assessment of their life, while pain is only one of several variables contributing to participants’ sense of depression. The experience of pain may increase the need for social support to maintain a positive sense of life satisfaction in the context of OA.

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PERCEPTION OF CONTROL IN THE EXPRESSION OF NON-CARDIAC CHEST PAIN

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Past studies have confirmed the importance of perceived control in mental and physical health and wellbeing. Specifically, control has been shown to influence the expression and course of acute and chronic pain. Non-cardiac chest pain (NCCP), angina-like pain in the absence of medical explanation, has begun to attract attention as a major public health issue. NCCP is prevalent, disabling, chronic, and costly. However, despite wide ranging medical, social, and fiscal implications, little is known about the origin and maintaining factors associated with NCCP. The purpose of the present study was to examine the role of psychological perceptions of control in NCCP. 120 cardiology patients (mean age=51.4) who received negative cardiac evaluations completed the Multi-dimensional Pain Inventory, Shapiro Control Inventory, and a chest pain history questionnaire. Analyses of variance and correlational analyses revealed significant relationships between NCCP and several dimensions of control. Specifically, pain severity was associated with lack of control (r=.38, p<.01), desire for control (r=.26, p<.05), and internal locus of control (r=-.20, p<.05). Interference was associated with overall sense of control (r=-.35, p<.01), self-efficacy (r=-.29, p<.01), and internal locus of control (r=-.25, p<.05). Distress was correlated with overall sense of control (r=.32, p<.01) and self-efficacy (r=-.29, p<.01). Results from this study suggest that patients with low perceptions of control may be likely to continue to experience pain and disability, resulting in higher medical utilization and cost, and diminished quality of life. In addition, these findings may have important implications for treatment.

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CYTOKINE CHANGES AND COGNITIVE-BEHAVIORAL TREATMENT IN TMD

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The purpose of this study was to determine whether changes in temporomandibular dysfunction (TMD) pain after CBT are associated with changes in circulating cytokine levels. 30 men and women with jaw pain for at least 3 months were randomly assigned to either a 6-week standard care group (STD; n=15) or to standard care plus cognitive-behavioral treatment (STD+CBT; n=15). STD consisted of placement of a flat plane splint plus prescription of NSAIDs. The STD+CBT condition added stress management and habit modification. Patients were followed at 6-week intervals out to 24 weeks. Detectable plasma levels of IL-10, IL-6, and TNFα were found for 27 subjects. Repeated measures ANCOVA yielded significant Treatment X Time effects on IL-6 and on TNFα (p < .05 for each); these cytokine levels tended to decrease over time in the STD+CBT patients, but not in the STD patients. IL-10 levels increased over time in both groups. Separate HLM analyses were conducted in which pain was the repeated dependent variable, and each of the three cytokine levels were independent variables. A significant Treatment X Time X Cytokine level effect emerged for TNFα (p < .05). Analysis of significant Time X Cytokine effects indicated that IL-6 and IL-10 (p < .05 each for cytokine). These results indicated a pattern of decreasing pro-inflammatory activity in IL-6 and TNFα, and increasing anti-inflammatory activity in IL-10, coinciding with pain levels over time, and varying by Treatment type. Results are seen as supporting the idea that CB treatments for chronic pain states may act in part by effecting changes in cytokine networks and inflammation.

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ANGER REPRESSORS, EMOTION SUPPRESSION AND PAIN

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Repressed anger has been theoretically linked to manifestations of physical pain, but empirical evidence for this phenomenon is scant. Adapting ironic process theory, we propose that anger repressors (per Weinberger) chronically and automatically suppress anger-related thoughts and feelings, leaving them vulnerable to heightened sensitivity to pain via suppression-induced chronically hyperaccessible anger. If so, anger repressors should manifest sensitivity to later pain indistinguishable from anger expressors made to suppress emotion during a prior anger-provoking event. Participants (N=64) completed Anger-Out (AO) and Marlow-Crowne (MC) scales and underwent mental arithmetic under 1 of 3 emotion suppression conditions: no suppress; suppress expression; suppress experience. A cold-pressor ensued. Regressions revealed significant AO x SD x Condition effects on log-transformed pain threshold (p=.02). Further analyses revealed significant AO x SD effects within no suppress (p=.02) and suppress experience (p=.04), but not within suppress expression (p=.28), conditions. Pain thresholds at high and low (±1 SD) AO and MC revealed similarly low pain thresholds among anger expressors (Lo AO/HI MC) in no suppress (4.70) and suppress experience conditions (3.78), as well as among anger expressors (Hi AO/Lo MC) in the suppress experience condition (4.20). These pain thresholds were lower than those of anger expressors (3.14) in the no suppress condition, as well as those of truly low anger expressors (Lo AO/Lo MC) in both no suppress (6.92) and suppress experience (5.47) conditions. These findings lend empirical support to the notion that repressed anger may influence physical pain, and further suggest that such effects may be partly attributable to anger repressors’ spontaneous suppression of anger-related thoughts and feelings.

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PAPER SESSION #22 1:30 PM–1:48 PM

PAPER SESSION #22 2:06 PM–2:24 PM

PAPER SESSION #22 2:24 PM–2:42 PM

CITATION PAPER
THE EFFECT OF ANGER MANAGEMENT AND COMMUNICATION TRAINING ON FUNCTIONAL AND QUALITY OF LIFE STATUS IN FIBROMYALGIA PATIENTS
Alexandra M. Stillman, M.A., M.P.H., 1 M. Scott DeBerard, Ph.D., 1 and Susan L. Crowley, Ph.D. 1
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The purpose of this study was to determine the efficacy of a group therapy intervention based on cognitive behavioral techniques incorporating communication skill building and anger management training in decreasing fibromyalgia (FMS) symptoms, improving health-related quality of life, decreasing anger levels, improving communication, and enhancing self-efficacy. Participants were FMS patients (N=46; 96% female, 100% Caucasian) randomly assigned to 1 of 2 groups. The treatment group (n=24) consisted of a four-week psychosocial educational group therapy intervention which met once weekly for 90 minutes. Instruction was provided in a number of coping skills including communication and relaxation training. The control group (n=22) was wait-listed and assessed with the treatment group at intake and again four weeks later. Outcomes were assessed at the beginning and at the end of the study by means of the Fibromyalgia Impact Questionnaire (FIQ), Short-Form 36 (SF-36), State-Trait Anger Expression Inventory-2 (STAXI-2), Chronic Pain Self-Efficacy Scale (CPSS), and a Communication Scale. Repeated measures ANOVA revealed significant time by group interactions (p<.05) for the SF-36 mental health-related scales as well as the Communication Survey subscales. General and symptom-specific measures of physical function were less impacted by the intervention. Results demonstrated that a brief and cost-effective four-week intervention can have a beneficial impact for FMS patients in the area of psychological function.

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CURRENT HEALTH BEHAVIORS OF CANCER SURVIVORS: EXAMINING OPPORTUNITIES FOR CANCER CONTROL INTERVENTION
Keith M. Bellizzi, Ph.D., M.P.H., 1 Julia H. Rowland, Ph.D., 1 and Diana D. Jeffery, Ph.D. 1
1Office of Cancer Survivorship, National Cancer Institute, Bethesda, MD.

PURPOSE: A population-based investigation was conducted to examine current health behaviors (smoking, alcohol, physical activity, and cancer screening) of cancer survivors. Understanding health behaviors of cancer survivors is imperative as many cancer survivors are now living longer and are at increased risk for secondary tumors, cardiovascular disease, diabetes, and quality of life problems. METHODS: Using the National Health Interview Survey (NHIS), this study examined the prevalence of smoking and use of alcohol as well as whether cancer survivors (n=5,426) are meeting the American College of Sports Medicine’s recommended level of physical activity compared noncancer controls (n=90,038). Additionally, analyses were conducted to examine cancer screening behaviors in survivors compared to noncancer controls. RESULTS: Analyses found cancer survivors are similar to individuals without a cancer history with respect to smoking status and physical activity level, after adjusting for differences between groups. However, cancer survivors are 23% and 29% more likely to meet mammogram and Pap smear screening recommendations, respectively, compared with individuals without cancer controls. CONCLUSIONS: The similarities between cancer and non-cancer groups found in these analyses are generally reassuring. However, selected differences in behavior emphasize the importance of innovative health behavior education programs designed for both cancer survivors and providers of their care.

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RACIAL IDENTITY AND HEALTH CARE UTILIZATION IN SICKLE CELL DISEASE
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Sickle cell disease (SCD) is a group of hemoglobinopathies that affect over 70,000 African Americans. Both the pathophysiology of SCD and its psychosocial sequelae have been detailed in the literature, but much less is known about factors that influence health care utilization – particularly sociocultural factors. The present study examines the relationship between racial identity and health care utilization in African American adults with SCD. Fifty-seven adults (34 females; mean age = 36 years; SD = 11.74) attending an outpatient hematology clinic completed measures of disease severity, health care use, psychosocial functioning, and racial identity during a regularly scheduled clinic visit. A hierarchical regression analysis was conducted in which health service utilization was predicted from disease severity (i.e., pain frequency, pain intensity, and number of acute and chronic events), psychosocial functioning (i.e., positive/negative affect, perceived stress, and psychological distress), and racial identity variables. Results indicated that racial identity significantly predicted health service utilization after statistically controlling for disease severity and psychosocial variables [R² Δ = .16, F (2, 42) = 5.36, p = .008]. These results suggest that individuals with an affirmative racial identity are less likely to use health care services despite similar SCD histories and levels of psychosocial functioning. No other study has explicitly examined associations between racial identity and health care utilization among adults with SCD; therefore, this study represents an important step in understanding the sociocultural context of variability in health care utilization patterns.

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ADHERENCE TO EXERCISE IS A DYNAMIC PROCESS IN FIBROMYALGIA
Patricia L. Dobkin, Ph.D., Deborah Da Costa, Ph.D., Michal Abramowicz, Ph.D., and Maria Dritsa, MSc.

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A recent review of the literature supported that individuals with Multiple Sclerosis (MS) engaged in less physical activity than the general population (Motl, Snook, & McAuley, in press). That overall conclusion, however, depended upon the validity of scores from measures of physical activity among the MS population. Herein, we conducted two studies that evaluated the validity of scores from objective and self-report measures of physical activity among those with MS. The first study evaluated the accuracy of two pedometers against actual (observed) steps under controlled laboratory conditions (5 minutes bouts of walking at 5 different treadmill speeds [54, 67, 80, 94, & 107 m/min-1]) among 20 individuals with MS. The second study evaluated the validity of two pedometers, an accelerometer, and two self-report surveys during seven days of free-living conditions among 25 individuals with MS. In the first study, both pedometers exhibited good accuracy with the 80, 94, and 107 m/min-1 speeds, but poor accuracy with the 54 and 67 m/min-1 speeds. In the second study, there were strong correlations (r) between scores from the two self-report measures of physical activity and (b) among scores from the three objective measures of physical activity, and (c) moderate correlations between scores from the self-report and objective measures of physical activity. Our results support the quantification of physical activity among those with MS using validated self-report and objective measurement tools.

Measuring Physical Activity Among Individuals With Multiple Sclerosis
Robert W. Motl, Ph.D., Erin M. Snook, M.S., Edward McAuley, Ph.D., and Jennifer A. Scott, B.S.

Department of Kinesiology, University of Illinois at Urbana-Champaign, Urbana, IL.

A recent review of the literature supported that individuals with Multiple Sclerosis (MS) engaged in less physical activity than the general population (Motl, Snook, & McAuley, in press). That overall conclusion, however, depended upon the validity of scores from measures of physical activity among the MS population. Herein, we conducted two studies that evaluated the validity of scores from objective and self-report measures of physical activity among those with MS. The first study evaluated the accuracy of two pedometers against actual (observed) steps under controlled laboratory conditions (5 minutes bouts of walking at 5 different treadmill speeds [54, 67, 80, 94, & 107 m/min-1]) among 20 individuals with MS. The second study evaluated the validity of two pedometers, an accelerometer, and two self-report surveys during seven days of free-living conditions among 25 individuals with MS. In the first study, both pedometers exhibited good accuracy with the 80, 94, and 107 m/min-1 speeds, but poor accuracy with the 54 and 67 m/min-1 speeds. In the second study, there were strong correlations (r) between scores from the two self-report measures of physical activity and (b) among scores from the three objective measures of physical activity, and (c) moderate correlations between scores from the self-report and objective measures of physical activity. Our results support the quantification of physical activity among those with MS using validated self-report and objective measurement tools.

Objective Outcomes of Physical Activity in an Intervention Trial
Melissa Napolitano, Ph.D., Jessica Whiteley, Ph.D., Beth Lewis, Ph.D., Anna Albrecht, R.N., M.S., Alfred Parisi, M.D., Christopher Sciamanna, M.D., John Iakichis, Ph.D., George Papadonatos, Ph.D., and Bass Marcus, Ph.D.

Miriam Hospital, Brown Medical School, Providence, RI; and University of Pittsburgh, Pittsburgh, PA.

Many physical activity intervention trials have relied solely on self-report or interviewer-based measures for assessing outcomes. We randomized 239 healthy, sedentary adults (mean age =47.5; 82% women) to receive one of the following: (1) telephone-based, individualized motivationally-tailored feedback; (2) print-based, individualized motivationally-tailored feedback; or (3) minimal contact wait-list control. Assessments were conducted at baseline, 6, and 12 months, including interviewer-based (Physical Activity Recall (PAR)), and objective (Actigraph) measures of moderate physical activity (MOD+PA). Thirty percent of the sample wore an Actigraph. The objective of this study is to validate the PAR and to determine if the Actigraph is sensitive to change over time. The PAR correlated with the Actigraph at baseline (r=.48 p<.0001), M6 (r=30 p<.01), and M12 (r=.39 p<.001). At M6, after controlling for gender, season, and baseline values, the print and phone groups recorded more minutes of MOD+PA than the control group (print 91.4, 103.5, p=.05; phone 74.1 106, p=47.3). At M12, using the same covariates, the print and phone groups recorded more minutes of MOD+PA than the control group (print 27.6, p<.01; phone 62.9, 70.07; control 61.8). Both 6 and 12-month findings are consistent with the results from the PAR indicating that the Actigraph is sensitive to detecting physical activity changes over time and can be used as a tool to validate the PAR. Implications for future studies will be discussed.

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Using Electronic Experience Sampling to Measure Physical Activity Trajectories During Adolescence
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The assessment of physical activity (PA) via electronic experience sampling (EES) affords a number of methodological benefits over recall-based self-reports. This research examined the validity of PA reported through EES, and how EES can be used to measure PA trajectories during adolescence. A sample of 338 adolescents (50.6% female) of mixed ethnicity (53% Caucasian) participated in 4-day EES intervals (Thurs-Sun) occurring approximately every 6 months between 9th and 12th grade. Using a Palm III handheld computer, each participant reported his or her primary activity (e.g., exercise, walking, homework) every 30 (±10) min during waking hours (M = 903.10 observations per participant). Heart rate data were simultaneously assessed using a Polar monitor (n = 312). Generalized estimating equations compared heart rate values for diary-reported activities, and multilevel random coefficient modeling tested changes in PA over time. Heart rate values were greater for diary-reported exercise than for walking (p < .001). The proportion of time spent walking and exercising decreased between the 9th and 12th grade (p < .001). The rate of decline in walking was greater for boys than for girls (p = .03). Overall, boys reported a greater proportion of exercise than girls (p < .001), and girls reported a greater proportion of walking than boys (p < .001). Adolescent PA assessed via EES was found to be valid and consistent with epidemiological trends. Given its potential for simultaneously assessing important physiological, psychological, and contextual factors, EES presents a promising alternative for PA measurement.

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Paper Session #24 2:06 PM–2:24 PM

PHYSICAL ACTIVITY RELATIONSHIPS WITH OBJECTIVE AND PERCEIVED MEASURES OF URBAN FORM

Lawrence D. Frank, Ph.D.,1 Terry Conway, Ph.D.,2 James F. Sallis, Ph.D.,3 Brian E. Saelens, Ph.D.,3 and Kelli Kain, M.S.P.H.2

1Community Planning, University of British Columbia, Vancouver, BC, Canada; 2Psychology, San Diego State University, San Diego, CA; and 3College of Medicine, University of Cincinnati, Cincinnati, OH.

Both objective and perceived measures of the built environment, including land use mix, street connectivity, and residential density have been positively associated with physical activity. However, no research has tested the relative contribution of objective versus perceived measures of walkability in explaining physical activity in the same study. Outcome data were collected through the Neighborhood Quality of Life Study via deployment of Actigraph accelerometers on 1,285 adults in Seattle. The same environmental variables were measured objectively with Geographic Information Systems methods, and as perceived using a validated self-report instrument. Objectively measured residential density (r = .210/p < .001), and perceived residential density (r = .101/p < .001), were positively correlated with minutes of moderate and vigorous activity, and with each other (r = .607/p < .001). In a multiple regression, after controlling for age, gender, and income, objective residential density explained an additional 3.4% of variance (p < .01), but perceived density was not significant. In a separate regression, both objective and perceived measures (1.3% of variance; p < .01) of mixed land use added significantly to variance in physical activity explained by demographics. These findings suggest differences in how we perceive and objectively measure specific aspects of the built environment, but both types of measures were independently related to physical activity.

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Paper Session #24 2:24 PM–2:42 PM

COMPARISON OF SELF-REPORT AND ACCELEROMETER MEASURED PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOR FOR OVERWEIGHT WOMEN

Gregory J. Norman,1 Marion F. Zabinski,1 Karen J. Calfas,2 Jim F. Sallis,3 and Kevin Patrick.1

1University of California, San Diego; and 2San Diego State University.

Accurate assessment of physical activity levels present many challenges. Self-report measures are inexpensive but suffer from reporting biases and response burden. Accelerometers offer an ‘objective’ measure of activity but are expensive and can present logistical challenges. Many studies have evaluated physical activity measures, but few have evaluated sedentary behavior measures. The present study compared physical activity and sedentary estimates between two measures: the IPAQ (International Physical Activity Questionnaire) and the Actigraph accelerometer. Overweight women (n = 184; mean age = 41.2 (8.7), 61% white non-Hispanic, mean BMI = 32.3 (4.5)) participating in an intervention trial were assessed with both measurement instruments at baseline and 12-months. Temporal stability for both instruments (r = .29, p < .001) was good for both instruments for minutes of sedentary behavior with both measurement instruments at baseline and 12-months. Temporal stability for both instruments (r = .29, p < .001) was good for both instruments for minutes of sedentary behavior with both measurement instruments at baseline and 12-months. These findings indicate that while the IPAQ correlated with accelerometer measures, it over-estimates absolute activity level. The validity of the IPAQ estimates of leisure-time physical activity and sedentary behavior was supported for this population segment.

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Paper Session #24 2:42 PM–3:00 PM

NEIGHBORHOOD INFLUENCES ON PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOR AMONG OVERWEIGHT AND MODERATELY OBESE WOMEN

Athena S. Hagler, M.S.,1 Gregory J. Norman, Ph.D.,2 Karen J. Calfas, Ph.D.,2,3 James F. Sallis, Ph.D.,3 and Kevin Patrick, M.D., M.S.2

1JDP in Clinical Psychology, UCSD/SDSU, San Diego, CA; 2Family and Preventive Medicine, UCSD, La Jolla, CA; and 3Psychology, SDSU, San Diego, CA.

Research on neighborhood factors hypothesized to influence sedentary behavior and physical activity has greatly increased. The present study investigated the psychometric characteristics of five brief, self-report scales assessing these neighborhood factors, and the relationship between those scales and actigraph measured sedentary behavior (SB) and physical activity (PA) in a sample of 401 overweight and obese women (mean BMI=32.35, mean age=41.21, 39% non-white). The scales assessed 1) ability to walk or bike in the neighborhood, 2) safety from crime, 3) safety from traffic, 4) aesthetics of neighborhood surroundings, and 5) proximity to neighborhood facilities. Cronbach’s alphas for the scales were fair to excellent, with alphas ranging from .74 for the safety from traffic scale to .90 for the proximity to neighborhood facilities scale. The majority of bivariate correlations among the scales were significant (p<.05). There was no relationship between the proximity to neighborhood facilities and either safety from crime or aesthetics of neighborhood surroundings scales. A series of hierarchical regressions were conducted using daily minutes of SB, moderate-intensity PA, and vigorous-intensity PA as dependent variables and the scales as independent variables. None of the five scales were significantly related to SB, or moderate-or vigorous-intensity PA, while controlling for age. Lack of association between the scales and actigraph measured SB and PA may be attributable to the need to consider other neighborhood factors, use objective measures of neighborhood factors, or subject unfamiliarity with neighborhood characteristics. Further research is needed to understand these relationships.

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Paper Session #25 3:00 PM–3:18 PM

ASSESSING FOR DIFFERENTIAL PSYCHOSOCIAL MECHANISMS IN MEDITATION AND PROGRESSIVE MUSCLE RELAXATION

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Meditation and other CAM relaxation interventions are becoming popular, both in the popular media and the empirical literature. However, little is known regarding the mechanisms by which these interventions exert their beneficial effects. Investigating differences in these techniques is fundamental to our understanding of how they work. The outcomes that are differentially acted upon, as well as the influence of person variables, have been neglected in this literature. Thus, the present study evaluated these mechanisms in meditation and progressive muscle relaxation (PMR). We hypothesized that those with higher levels of depression, as well as focusing, would experience more relief from anxiety in the relaxation groups. Additionally, we hypothesized that meditation would be more effective in reducing cognitive anxiety, whereas PMR would be more effective in reducing somatic anxiety. In a sample of 387 undergraduate students (71% female; 29% African American, 52% Caucasian) ranging in age from 17 to 39 participants were randomly assigned to either meditation, PMR, or eyes-closed rest (controls). Baseline measures of depression (BDI), anxiety (STAI, CAS, SSS), and focusing (FI) were assessed. In groups of 20-30, participants were instructed in their assigned intervention and utilized their technique for 20 minutes. Anxiety was assessed again after relaxing. Repeated measures MANOVAs and hierarchical regression analyses (p<.05) revealed that both depression and focusing play an important role in these relaxation interventions. Additionally, differential effects on outcome measures were observed between the interventions. These findings suggest that person variables predict effectiveness of meditation and PMR, and these techniques do exert differential effects.

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Paper Session #25  3:48 PM–4:06 PM

LOVING-KINDNESS MEDITATION FOR CHRONIC LOW BACK PAIN

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This far no published studies have tested the impact of loving-kindness meditation on any condition or population. Loving-kindness meditation is an approach to developing love and compassion for oneself and others, which has been widely used for centuries in the Buddhist tradition. This pilot randomized controlled trial tested the impact of an 8 week group-based loving-kindness intervention on pain and adjustment among chronic low back pain patients. We chose to intervene with chronic low back pain because anger and resentment are salient emotional features of many of these persons’ pain experience. The growing recognition that unchecked anger and resentment can complicate the treatment of persistent pain has led to increased interest in identifying interventions that may modify these emotions. Forty-three patients (mean age = 51; 61% female; 63% Caucasian, 35% African American) participated in the study. Pre-post covariate analyses of patients in the loving-kindness condition revealed significant improvements in pain intensity, usual pain, anxiety, and psychological distress, with a trend also present for hostility. In contrast, no significant changes were observed in patients in the usual care condition. Follow-up analyses at 3 months indicated continued gains in the intervention condition but no change in the control condition. Multilevel analyses of intervention participants’ daily practice diaries showed significant improvements in daily tension and anger, and also that more loving-kindness practice on a given day was related to lower pain on that day, and lower anger on the next day. These preliminary results suggest the loving-kindness meditation program can be beneficial in reducing pain, anger, anxiety, and psychological distress in persons coping with persistent low back pain.

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Paper Session #25  4:06 PM–4:24 PM

A PATH ANALYTIC APPROACH TO THE RELATIONSHIP BETWEEN MEDITATION, STRESS, AND HEALTH

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Meditation is the key component of Mindfulness-Based Stress Reduction (MBSR) and other health psychology interventions. The present study assessed the directionality of the relationship between meditation and stress in a sample of meditation practitioners. The study also examined stress reactivity’s role in meditation’s healthful effects. Finally, the study assessed the relative importance of specific dimensions of meditation practice, including length and frequency of meditation.

The sample included 180 persons practicing meditation similar to that used in MBSR, recruited from meditation centers nationwide. Subjects completed measures on meditation habits, the Weekly Stress Inventory (WSI), and the Short Form-36V health survey. Stress reactivity was defined as average stress per minor stressor, as recorded by the WSI. Data were collected via the internet and by mail.

A path analysis compared two models differing on the causal direction of the path between stress reactivity and recent meditation. A model positing recent meditation influencing stress reactivity provided a better fit to the data than the model positing stress reactivity influencing meditation practice (Adjusted GFI was 0.97 vs. 0.57). Stress reactivity and health status were strongly and negatively correlated (r = -0.13 to -0.46). Meditation frequency was as important to stress reactivity as duration of meditation. Recent meditation was associated with emotional health (r = 0.18; p < 0.05), vitality (r = 0.16; p < 0.05), and stress reactivity (r = -0.10; p = 0.18), whereas lifetime meditation experience was less important. These data support the role of ongoing meditation practice in promoting mental and physical health.

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Paper Session #25  4:24 PM–4:42 PM

HEALTH INTERVENTIONS COMBINING MEDITATION WITH LEARNING FROM SPIRITUAL EXEMPLARS: CONCEPTUALIZATION AND REVIEW

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Health benefits associated with meditation are increasingly prominent in research and clinical practice. But as noted in a recent NIH panel report, scientific research has mostly avoided reference to meditation’s religious or spiritual (RS) components. RS components merit study because growing evidence links RS involvement with health, longevity, and salutary coping resources. Approximately two thirds of US adults indicate religion is “extremely” or “very” important in their lives.

Bandura’s influential Social Cognitive Theory converges with traditional RS teachings in suggesting that RS practices function to support observational learning from other persons (from tradition or within community) who serve as models of spiritually-based attitudes, practices, and coping. Such spiritual modeling is theorized to support and complement meditation practice in fostering improved coping. Improvements may include reduced reliance on smoking and substance abuse, reduced chronic anger, hostility, depression, and hopelessness (all linked to heart disease), and diminished perceived stress (linked to infectious disease risk and other disorders).

This paper provides theoretical groundwork for understanding spiritual components of meditation interventions by using Social Cognitive Theory to review program features that support learning from spiritual exemplars. Four previously researched meditation interventions are highlighted: Transcendental Meditation, Mindfulness-Based Stress Reduction, Benson’s Meditation, and Easwaran’s Eight Point Program. Findings indicate that methods varied widely in inclusion of spiritual modeling material through poetry, narrative, support groups, and other means, and in strategies for assimilating such material. We discuss implications for practice and directions for future research. We also briefly review findings from a new research instrument designed for assessing spiritual modeling phenomena.

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Meritorious Student Paper

Paper Session #25  4:42 PM–5:00 PM

EXPERIMENTAL STUDY ON THREE METHODS OF STRESS INTERVENTION: CHINESE CALLIGRAPHIC HANDWRITING, MEDITATION AND BIOFEEDBACK TRAINING

Henry S. R. Kao, 1 Li-Chuan Chu, 1 An-An Chao, 1 Hao Yi Chen, 1 and Ann Lin. 3

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This study compared the physiological effects on the practitioner in the three methods of stress interventions: Chinese Calligraphic Handwriting (CCH), Meditation, and Biofeedback Training. A total of 40 subjects were randomly assigned to the Chinese Calligraphic Handwriting (CCH), Meditation, Biofeedback and control groups of 10 each. All subjects were tested in a psychology laboratory within an 8-week period. During the experiment, the four groups were measured on EKG, Heart Rate, IBI, EMG, BVP, SC/GSR, Skin Temperature and Respiratory Rate before and after each treatment for a total of eight treatments. The experimental groups engaged in Chinese Calligraphic Handwriting, Meditation and Biofeedback practices for 20-minutes protocol of each session, while the control group only sat quietly during periods of inactivity. The results showed that there were better relaxation responses on EKG for those practicing the Chinese Calligraphic Handwriting (p<.01), Meditation (p<.05), Biofeedback (p<.05) than the control group. Moreover, both the Meditation (p<.05) and the Biofeedback (p<.01) groups had lower level of EMG than the CCH group. The Biofeedback group had higher IBI level than the control group (p<.05), and the Meditation group had higher Skin Temperature than the Biofeedback group (p<.05).

The conclusion of this study was that various stress interventions such as Chinese Calligraphic Handwriting (CCH), Meditation, and Biofeedback Training all made adjustment effectiveness on various physiological functions by their relaxation therapy. However, it got indiscernible same related responses on EKGs by the three stress intervention methods.

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Paper Session #26  3:30 PM–3:48 PM

EFFECTS OF A PRENATAL MOOD MANAGEMENT INTERVENTION ON POSTNATAL SALIVARY CORTISOL LEVELS IN MOTHERS AND THEIR INFANTS

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Recent studies have suggested that elevated stress levels during the pre- and post-natal period are related to poor maternal and infant health outcomes. However, few studies have prospectively examined the efficacy of psychosocial interventions on reducing biological markers of stress, such as cortisol. This longitudinal study examined whether a prenatal mood management intervention (MMI) would be effective in regulating morning (AM) and evening (PM) salivary cortisol levels in mothers (at high risk for depression during pregnancy) and their infants (61% boys) at 18 months postpartum. Fifty-four low-income mothers (age=25.4; 78% Spanish-speakers) were randomized to either a 12-week, prenatal MMI (n=34) or to a usual care condition (UC; n=20) and collected salivary cortisol levels during pregnancy, 3-6 and 18 months postpartum. Repeated Measures ANCOVA analyses (controlling for 3-month cortisol levels and infant gender) demonstrated that: 1) UC mothers had somewhat higher AM (p=0.06) and significantly higher PM cortisol levels at 18 months compared to MMI mothers (F=4.27, p=0.01); 2) mothers who gave birth to baby girls tended to have higher AM cortisol levels at 18 months compared to mothers with baby boys (F=2.83, p=0.05); and 3) infants of UC mothers had non-significant trends (p=0.08) and significantly higher PM cortisol levels at 18 months compared to infants of MMI mothers. These findings suggest that prenatal MMI’s may provide long-term health benefits (i.e., mood and stress regulation) for both mothers at risk for stress-related disorders and their infants.

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Paper Session #26  4:06 PM–4:24 PM

INTRUSIVE COGNITIONS ABOUT BREAST CANCER MEDIATE HIGHER URINARY WORK CORTISOL RESPONSES IN WOMEN WITH FAMILY HISTORIES OF BREAST CANCER

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Research in animals and humans provides compelling evidence that acute stress responses are increased in the presence of background worries. Women at familial risk for breast cancer have been reported to have higher urinary cortisol levels during work compared to population risk women. How background stress impacts acute stress responses is unresolved. We hypothesized that intrusions about breast cancer (Impact of Events Scale) would mediate the relationship between familial risk and increased cortisol reactivity to work. Healthy working-women with and without family histories of breast cancer (FH+, n=74; FH-, n=141) were recruited by advertisements. They completed self-report measures and collected urine samples during work. Demographic and health-related variables (e.g., age, race, smoking, and alcohol history) did not identify as confounders. FH+ women were more likely to have intrusions about breast cancer (p<0.02), as well as higher perceived breast cancer risk (p<0.001), and higher work cortisol (p<0.05). Consistent with study hypotheses, linear regression analysis indicated that when intrusion was included in the model, the relationship between FH and work cortisol levels was no longer significant (p=0.1, eta2=0.01); perceived breast cancer risk (p=0.6, eta2=0.001) was also not significant. The Sobel test indicated indirect effects of family history on cortisol via intrusions. Thus, higher levels of intrusions about breast cancer in women with family histories of the cancer disease can result in increased cortisol reactivity to daily stressors, which may have negative health consequences.

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Paper Session #26  3:48 PM–4:06 PM

STRESS AND RECOVERY FROM ARTHROSCOPIC KNEE SURGERY

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Few studies have simultaneously considered psychological indices and neuroendocrine markers of stress while examining its influence on surgical recovery. This prospective, longitudinal study investigated the impact of psychological stress over time on physical recovery over time in patients undergoing arthroscopic knee surgery. Additionally, it investigated the relationship between a neuroendocrine marker of stress, salivary cortisol level, and physical recovery. The sample included 175 meniscectomy patients. The mean age was 48 years; 45% were female and 94% were Caucasian. Preoperative data were obtained within 2 weeks of surgery and postoperative at weeks 1, 3, 8, 16, and 24. Patients rated weekly stress in 6 areas to determine pre- and postoperative stress levels. Patients also completed a postoperative recovery scale assessing ability to perform daily living, work, social, and sports activities. Physicians rated knee pain, function, and biomechanical status (e.g., flexion, extension) both pre- and postoperatively. Preoperative mean daily salivary cortisol level was obtained for 26 patients. Mixed model repeated measures analyses revealed that stress level over time significantly predicted all four outcomes over time (recovery, knee pain, function, and biomechanical status) while accounting for sex, age, and preoperative knee status. Correlational analyses between cortisol level and outcomes revealed significant correlations (p<0.05) across all outcomes at all early recovery time points (weeks 1 and 3). Results support that stress over time is associated with poorer physical outcomes. Direct neuroendocrine influences appear strongest at early phases of recovery.

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Paper Session #26  4:24 PM–4:42 PM

EXPLORING STRESS AND CORTISOL DIFFERENCES BETWEEN FULL-TIME AND PART-TIME NURSES

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Purpose of the study/project: It was hypothesized that self-reports of higher work-related stress levels would correlate with higher levels of salivary cortisol secretion.

Study Design/Methods: Two groups of nurses were approached: 75 of 178 full-time nurses and 60 of 156 part-time nurses agreed to participate. Participants completed a self-administered questionnaire addressing work and life stressors, self-reported health outcomes and basic demographic information. Cortisol samples were obtained Salivettes® at 1, 4, 9, and 11 hours after waking and just before bedtime, on 2 work and 2 non-work days.

Results: Exploratory analyses using t-tests and correlations were examined between average weekday and home day cortisol levels and the work stress and health variables. Relationships with cortisol were further explored using a multi-level modeling (MLM) approach that controlled for potential confounders as well as within-person/time autocorrelation. There were no strong correlations between cortisol and any of our work stress measures. There was good correlation within subjects for cortisol across the sampling days (r>0.7). Cortisol levels were higher on workdays, with levels highest at one hour after waking. Sample time and workday had the strongest association with cortisol in the MLM analysis. Poorer nurse-physician relations and presence of self-reported neck pain both predicted higher cortisol levels (p<0.05).

Implications: Salivary cortisol analysis may have potential for workplace stress field studies but future studies need to identify the survey measures most strongly correlated with it. Generic measures may not be suitable for cross-sectional analyses.

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CLINICAL DEPRESSION AND REGULATION OF THE INFLAMMATORY RESPONSE DURING ACUTE STRESS

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Depression is a risk factor for morbidity and mortality due to a wide variety of medical conditions. To begin identifying mechanisms responsible for this phenomenon, we examined whether depression moderates the immune response to an acute bout of psychological stress. A total of 72 women participated in the study; half met diagnostic criteria for clinical depression; the others had no history of psychiatric illness. The groups were matched with respect to age and ethnicity. All subjects were exposed to a 17-minute mock-job interview; blood was drawn to assess secretion and regulation of inflammatory molecules. The stressor was associated with feelings of shame and anxiety, a mobilization of monocytes, neutrophils, and C-reactive protein into the circulation, and greater endotoxin-stimulated production of interleukin-6 and tumor necrosis factor-α by white blood cells in vitro. Depressed subjects began the session with greater sensitivity to the anti-inflammatory properties of glucocorticoids than control subjects. Following exposure to the stressor protocol, however, sensitivity decreased among depressed subjects, and increased among controls. This was manifest by disparities in interleukin-6 and tumor necrosis factor-α production in the presence of dexamethasone. These findings suggest that under acutely challenging conditions, depression is associated with greater resistance to molecules that normally terminate the inflammatory cascade. An impaired capacity to regulate inflammation could underlie some of the excess morbidity and mortality that has been associated with depression.

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Paper Session #27 3:30 PM–3:48PM

PATIENT AND PHYSICIAN ATTITUDES IN THE HEALTHCARE CONTEXT: ATTITUDINAL SYMMETRY PREDICTS PATIENT SATISFACTION AND ADHERENCE

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This study examined the degree of similarity between attitudes held by patients and their physicians about the patient role in healthcare delivery, and its association with patient satisfaction and adherence. Primary care physicians were recruited from the University of Iowa Carver College of Medicine. Patients of these physicians were recruited if they had been seen by their physician at least twice in the previous six months. Sixteen physicians and 139 patients were recruited for the study. The physician sample was 55% female (average age=43.80). The patient sample was 63% female (average age=55.96). Physicians and patients completed two measures reflecting healthcare related attitudes: the Multidimensional Health Locus of Control questionnaire (Wallston et al., 1978) and the Patient-Provider Orientation Scale (Krupat, et al., 2000). A physician form of the MHLC was adapted for this study. Patients also completed the Patient Satisfaction Questionnaire (Marshall and Hayes, 1994) and the General Adherence Scale (DiMatteo, et al., 1984). Analyses were conducted using HLM with patients “nested” within physician. Physician-patient symmetry on each attitudinal measure was calculated as the absolute difference between physician and patient score. Symmetry on internal health locus of control was positively associated with patient adherence (r=0.24, p<0.05) and satisfaction (r=0.26, p<0.01). Symmetry on the information/power sharing subscale of the PPO was also positively associated with adherence (r=0.19, p<0.10). These data suggest that patients are more satisfied with care and report better adherence when their physicians’ attitudes are consistent with their own.

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Paper Session #27 4:06 PM–4:24 PM

COMPANION QUESTIONS DURING DISCUSSIONS OF BAD NEWS IN THE OUTPATIENT ONCOLOGY SETTING

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Patient question-asking has been examined as an indicator of patient-centeredness and active participation in the encounter. Questions asked during difficult encounters, such as those containing bad news, are particularly important in encouraging patient involvement. Most research on bad news encounters has focused on patients and physicians, although our research has shown that patients are frequently accompanied by companions. In this study, we explore the role of companion question-asking during bad news interactions. 26 videotaped interactions that contained bad news were taken from a larger study of oncologist-patient communication in two outpatient clinics. After identifying which encounters included at least one companion, we transcribed all patient and companion questions. Questions were then coded for topic. Of the 26 interactions, 22 included at least one companion. Participants were 97% white; mean patient age was 61, and mean companion age was 49.61% of companions and 29% of patients were female. Of the companions, 43% were spouses and 32% were children. 477 questions were asked by either patient or companion, and of these, 62% (n=295) were asked by the companion. Almost half (47%) of companion questions were about treatment. By comparison, treatment comprised only one-third of patient questions. Findings suggest that companions play a significant role in the discussion of bad news in oncology outpatient settings. As such, analysis of the medical encounter needs to increase its focus on the role of the companion to ensure effective communication during difficult encounters.

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Paper Session #27  4:24 PM–4:42 PM

ASSERTIVENESS AND WOMEN’S VIEWS OF THEIR PHYSICIAN’S ROLE IN THE MEDICAL ENCOUNTER

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Women’s assertiveness with healthcare providers is associated with their use of cancer screening. Women who report frequently engaging in assertive behaviors are more likely to receive mammograms than those who report doing these behaviors less often. In this study we asked 209 women receiving ultrasound examinations for conditions other than pregnancy about their beliefs about their physician’s role in medical encounters and their self-reports of assertive behaviors. Most women disagreed with the statements that described physicians as experts and agreed with statements describing physicians as advisors to patients, women also generally reported engaging in a variety of assertive behaviors. Confirmatory factor analysis revealed a model including three correlated latent factors to fit the data moderately well, Chi²(496) = 52.78, p = 0.011; the comparative fit index (CFI) for this model was .93 indicating adequate fit. There was a (.57) negative correlation between belief in physicians as experts and the self-report of assertive behaviors. The association between beliefs in physicians as advisors and assertiveness was positive (0.43), while the association between beliefs in physicians as advisors and as experts was negative (-0.21). Such a pattern of association suggests that women’s beliefs about a physician’s role and their use of assertive behaviors share common variance. Examination of a scale including three factors produced an 11-item measure of assertiveness with physicians scale, with a Chronbach’s alpha of 0.77. The eleven-item scale consisting of three correlated subscales each with adequate reliability (alphas of .81, .55, and .64).

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Paper Session #28  3:30 PM–3:48 PM

CANCER-SPECIFIC SELF-EFFICACY AND PSYCHOSOCIAL AND FUNCTIONAL ADAPTATION TO EARLY STAGE BREAST CANCER

Sharon L. Manne, Ph.D.,1 Jamie S. Ostroff, Ph.D.,2 Tina R. Norton, Ph.D.,1 and Kevin Fox, M.D.3
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Although self-efficacy is a key psychological resource in adapting to chronic physical illness, this construct has received less attention among individuals coping with cancer. The present study examined changes in cancer self-efficacy over a one year period of time among 101 women with early stage breast cancer, as well as cross-sectional and longitudinal associations between task-specific domains of self-efficacy and specific psychological, relationship and functional outcomes. Results indicated that cancer self-efficacy was stable over one year, with only two domains of efficacy, activity management and self-satisfaction efficacy, showing significant increases over time. Cross-sectional findings from regression analyses were largely consistent with predictions and suggested that specific domains of self-efficacy were more strongly associated with relevant domains of adaptation. For example, affective management self-efficacy was associated with distress and well-being and cancer-specific distress, whereas activity management self-efficacy was associated with functional impairment. Longitudinal findings contradicted the cross-sectional findings. Only personal management was predictive of psychological, relationship and functional outcomes when evaluated longitudinally. These results suggest that specific domains of cancer self-efficacy are most closely related to relevant domains of adaptation when considered cross-sectionally but further study is needed to clarify these relationships over time.

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Paper Session #28  3:48 PM–4:06 PM

PREDICTORS OF LONG-TERM DISTRESS IN RELATIVES OF WOMEN RECENTLY DIAGNOSED WITH BREAST CANCER

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Enduring emotional distress is a significant problem for approximately 1/3 of close female relatives of women with breast cancer. Beyond the quality of life issues, distress may also interfere with appropriate participation in cancer screening. However, little is known about predictors of long-term distress, particularly information gathered near the time of the index patient’s diagnosis that would predict distress a year later. Classification and Regression Tree (CART) analysis was conducted with data from 584 women contacted for telephone interviews through the index breast cancer patient (IP) within 8 weeks of the diagnosis. The criterion measure was having significantly elevated cancer-specific distress (approximately 29% of the sample) at the 1 year follow-up. Predictors were chosen from the baseline variables guided by the C-SHIP model. CART analysis identified subgroups of close relatives of cancer patients with 50% or greater chance of reporting high distress at 1 year. They include women with: 1) very high baseline distress, 2) more moderate baseline distress who are the sister or mother of the IP and who feel they are very similar to the IP, and 3) relatively low levels of baseline distress, who are the mother or sister of the cancer patient and engage in high levels of both avoidance and engagement coping. Such information can inform the development of psycho-educational interventions aimed at helping to reduce emotional distress, moderate perceived risk, and optimize screening in these women.

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Paper Session #27  4:42 PM–5:00 PM

AN INTERACTIVE ONLINE CAUSAL DIAGRAM OF PATIENT- AND PROVIDER-GENERATED FACTORS CONTRIBUTING TO ADVERSE DRUG EVENTS IN AMBULATORY CARE SETTINGS

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Adverse pharmaceutical outcomes in community settings may result from a combination of patient, provider and system factors. To represent patient and provider perspectives on the relationships among factors contributing to adverse drug events (ADEs), we developed an interactive web-based causal diagram based on interviews with 22 patients and 12 providers. Patient- and provider-generated factors were compared to evidence in the social science and medical literatures to identify those supported by evidence. Results of interviews show that outpatients encounter multiple, often interrelated, conditions that may contribute to ADEs, and these conditions occur in topical areas including doctor-patient miscommunication, patient self-medication without doctor prescription, polypharmacy, and patient error. Factors reported most frequently by patients included fear of negative reaction from the doctor, inability to understand prescription materials and doctor/patient miscommunication. Factors reported by men and women patients did not differ significantly, although more women cited polypharmacy and more men cited patients withholding information from the doctor as most frequent reasons for ADEs. Most factors are supported by evidence in the literature; however we found little research on psychological variables affecting patients motivation to adhere to medication instructions. Results of this project suggest that asking patients and providers why ADEs occur in community settings can reveal important first-hand information about the relationships among antecedents to ADEs in community settings that can lead to well-targeted educational interventions, and that online logic models offer a widely accessible, evolving tool applicable to multiple public health problems.

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Cancer distress is recognized as an important source of suffering. We developed a measure of disease and treatment-related distress and tested reliability, validity and outcomes related to this construct. Distress was assessed with 908 adult patients before hematopoietic stem cell transplantation and in survivors at 3, 6, 12, 24, 36, 60, and 120 months. Other measures included: the Short Form 36 Health Survey (SF36) or Sickness Impact Profile (SIP), Center for Epidemiologic Studies Depression (CESD) or Beck Depression Inventory (BDI), and Symptom Checklist 90-R Anxiety (Anxiety). Factor analysis with promax rotation established subscales and generalized estimating equations examined trajectory over time relative to other measures of affect and quality of life. Patients were a mean age of 40.1 (range 18-68), 45.8% female, 1.9% Hispanic, 6.3% minority races. Diagnoses included hematologic and solid tumor malignancies. Factor analysis identified 6 factors (Uncertainty, Health Burden, Family, Finances, Managing Medical Demands, and Appearance and Sexuality) at six months and later, plus an acute treatment factor and total score. Internal consistency alphas ranged from .93 to .79. Total score correlations with criterion and discriminant validation scales included: CESD r=-.65, BDI r=.58, Anxiety r=.60, SF36 Mental Health r=.71, SF36 Physical health r=.39, and SIP Physical Dimension r=.195. Time trajectory of distress differed from depression, anxiety and physical function (P<.001). Thus, although correlated, cancer-related distress is distinct from depression, anxiety and physical function. Distress may have its own biobehavioral consequences and warrants targeted interventions.

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Paper Session #29 5:18 PM–5:36 PM

BASELINE RESULTS FROM THE NORTH CAROLINA BEAUTY AND HEALTH PROJECT

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The North Carolina BEAUTY and Health Project is a four year RCT that partners with 40 African American beauty salon owner and their licensed cosmetologists to test different methods of delivering cancer prevention messages to their customers. This paper reviews the study design, formative research, and describes baseline results from customers surveys (n=1298; response rate 70%) and salon owner interviews (n=40; response rate 100%). African American customers are 38.8 years of age, married (44.8%), average annual household income ($25K-$49K), and have at least some college training (37.5%). The majority of customers (57.6%) report visiting the salon every 2-4 weeks (17.4% report visiting weekly), 98.2% see the same stylist each visit and 69.7% report spending between 1.5-3 hours/visit (17.6% spend 3+ hours/visit). Interviews with owners revealed that on average, salons were in business 10.3 years, had an average of 3 employees who worked in the salon for 5.9 years; and, most (63%) owners report being in the salon daily. Owners believe that participating in the BEAUTY Project will enhance future business (48%); improve salon reputation in the community (68%); and, 93% would recommend participation in a study like the BEAUTY Project to other salon owners. Results reinforce the potential of the beauty salon as a place for promoting health and provide important leverage points for intervening to prevent cancer among customers and salon owners.

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Paper Session #29 5:36 PM–5:54 PM

QUITLINES: REACHING AFRICAN-AMERICAN SMOKERS WHO WANT TO QUIT

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It is generally believed that African-American (AA) smokers are less likely to use smoking cessation services compared to smokers of other ethnic groups. This study compared AA smokers to other smokers in their use of quitline services in California.

Data were taken from four large population surveys conducted in California (1993, 1996, 1999, and 2002) and from smokers who called the California Smokers’ Helpline (CSH), between 1992 to 2002 (N=256,455). CSH is a telephone-based cessation service sponsored by the California Department of Health Services.

Results show that African-American smokers are over represented in the sample of CSH callers compared to their percentages in the general population. Populations data indicate that 4.3% (±2.9) of the smokers who sought help to quit in 1993 were AA. In 1996, 1999, and 2002 those percentages were 8.4% (±3.4), 5.9% (±1.9), and 8% (±1.9), respectively. However, among callers to the Helpline, AAs represented 14.5%, 8.6%, 11.6%, and 13.3% in 1993, 1996, 1999, and 2002, respectively. In addition, African-American smokers who called the Helpline were more likely to be female (65.5 vs. 33.7% in 1993, and 64.9 vs. 47.4% in 2002, for example) and heavy smokers (54.2 vs. 39.7% in 1999, and 51.8 vs. 27.3% in 2002) than their counterparts in the population.

African-American smokers are over represented among callers to the Helpline, and the trend has continued since the early 1990’s. Quitlines appear to be an effective modality for reaching AA smokers who want to quit.

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Paper Session #29 5:54 PM–6:12 PM

COMMUNITY DELIVERY OF A RANDOMIZED CONTROLLED TRIAL IN TYPE 2 DIABETES

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Feasible conduct of randomized controlled trials (RCT) within African-American (AA) communities is challenging but essential for translation of research to practice in type 2 diabetes. Project Sugar 2 (PS2) is a RCT set within a university-affiliated managed care organization, through clinics in medically-under-served AA communities.

Design of PS2 is examined for factors that facilitated and inhibited delivery in this setting, using the RE-AIM model. REACH: Through collaborations with community clinics, PS2 randomized 542 AA with type 2 diabetes (57% of all eligible; mean age=58; 73% female). Sample representativeness was confirmed by comparing sociodemographic and clinical characteristics of participants and non-participants. Suboptimal glycemia, blood pressure, and lipids were prevalent, with 55% of intensive intervention group deemed moderate—high risk patients. EFFECTIVENESS: Based on effectiveness of pilot intervention (Project Sugar 1, 1995-1999), participants were randomized into two parallel intervention arms: Minimal (N=273; telephone calls) or Intensive (N=269; nurse case manager/community health worker-CHW clinic and home-based assessments, education). ADOPTION: Urban clinics participated. IMPLEMENTATION: Difficulties encountered were CHW training, interventionist retention, and home visitation. However for Intensive intervention, >2100 visits were completed, with >10 visits for 60% of participants. At the 3 Minimal intervention points, 273(100%), 262(96%), and 255(93%) telephone calls were completed. Participant retention was high (Intensive: 91%, Minimal: 97%) after 3 years of intervention.

An RCT can be designed for feasible delivery in the community where AA reside and receive care. Inhibiting factors include layperson training and retention. Community setting facilitates adoption, implementation, and high participant retention.

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Paper Session #29 6:12 PM–6:30 PM

PROCESS EVALUATION RESULTS IN THE BODY AND SOUL EFFECTIVENESS TRIAL

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The Body and Soul program, an evidence-based intervention implemented in African American churches, was tested in a cluster randomized effectiveness trial (15 church-clusters in 3 US regions, n= 854 participants) and found to be effective at increasing fruit and vegetable (F&V) intake among church members. The purpose of this process evaluation was to determine whether participants’ self-reported exposure, dose, and perceived quality of intervention components including church events, self-help materials, and motivational interview (MI calls) by Volunteer Advisors predicted greater change in F&V and fat intake, as well as psychosocial mediators including social support, self-efficacy, and intrinsic motivation. Qualitative interviews with church and ACS volunteers also were conducted to identify factors related to program implementation and maintenance.

Results indicated that attendance at the project kick-off and other church events, and receiving self-help materials, were associated with significant improvements (p<.05) in F&V and fat, as well as more favorable psychosocial outcomes. Receiving more MI calls did not predict greater change, however higher perceived call quality, as assessed using a 9-item scale measuring participants’ perceptions of MI-related skills of the caller (e.g., listening, not judging), was predictive of more change. Process interviews indicated that churches were maintaining Body & Soul events and activities but that more ongoing resources and technical support would increase their ability to sustain the program. The results provide valuable information for disseminating effective dietary interventions among African American churches.

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PAPERSession #30 5:00 PM–5:18 PM

ESTIMATING DIABETES SELF-MANAGEMENT COMPETENCE IN ADOLESCENCE

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The purpose of these studies was to determine whether children’s self-efficacy and parents’ perception of children’s maturity were related to adherence to diabetes self-management (DSM) and glycemic control (HbA1c) during adolescence. In Study 1, self-efficacy and maturity were examined in a sample of 81 youth ages 11 to 16 with type 1 diabetes. In regression analyses (adjR2 = .18 to .27), with age of child controlled, maturity was positively related to HbA1c and to DSM, as assessed by child and parent. Self-efficacy had a positive relationship to child report of DSM and, as predicted, there was evidence of interactions between self-efficacy and the child’s level of responsibility for DSM (positive) and HbA1c (negative). These interactions suggest that self-efficacy is more important when the child also has more responsibility for DSM.

In Study 2, these same relationships were examined in a second sample of 87 youth ages 10 to 16 with type 1 diabetes. Self-efficacy and maturity had direct relationships to DSM (adjR2 = .28 to .30) but were not significant in the regression equation for HbA1c (.04). In this sample, maturity positively interacted with level of responsibility for DSM. These results suggest that parents and youth are aware of characteristics predicting adherence to the diabetes regimen and that these could be used to guide decisions made regarding level of responsibility for DSM.

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Paper Session #30 5:18 PM–5:36 PM

PSYCHIATRIC HOSPITALIZATION AMONG POORLY CONTROLLED YOUTH WITH DIABETES

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Purpose: Comorbid psychiatric issues are an important problem for children with type 1 diabetes. This study examines the incidence of psychiatric hospitalizations among children hospitalized with poorly controlled diabetes.

Methods: To examine psychiatric hospitalizations, we first identified 2,193 children (0-18 years old) with poorly controlled diabetes defined as having >1 episodes of diabetic ketoacidosis (DKA)/ICD-9-code 250.11) using California Office of Statewide Health Planning and Development hospital discharge data for years 1998 to 2000. We used record linkage number (RLN) to group children by severity of illness (1,694 children with single versus 499 children with multiple DKA hospitalizations), and RLN and ICD-9 codes(290.0-319.0) to identify psychiatric hospitalizations for these children.

Results: Eighty-two children (12.4 cases/1,000 person years, 95% CI 9.9-15.5/1,000 person years) were hospitalized for psychiatric illness during 1998-2000 (160 hospitalizations). This is higher than the general pediatric population (17 cases/1,000 person years). Further, children with multiple DKA were 2.4 times more likely to be hospitalized for psychiatric illness than children with single DKA (95% CI 1.6-3.7, p<0.001). Twenty-nine children (35%) had more than one psychiatric hospitalization. Depression was the most frequent reason for psychiatric hospitalization. Twenty-nine children(35%) had more than one psychiatric hospitalization.

Conclusions and Implications: Children hospitalized with poorly controlled diabetes are at increased risk of psychiatric hospitalization compared to the general pediatric population, with those having multiple DKA at highest risk. Routine care of children with diabetes, particularly with recurrent DKA, must include early identification and treatment for depression and other psychiatric issues.

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Citation Paper

Paper Session #30 5:36 PM–5:54 PM

PIES SANOS: IMPROVING FOOT SELF-CARE IN PATIENTS WITH TYPE 2 DIABETES

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Objective: The purpose of this randomized controlled trial was to determine if a brief intervention would improve foot self-care behaviors in adult patients with Type 2 diabetes who presented to the emergency department for non-emergent care in a predominantly Hispanic southwestern border community.

Research Design and Methods: This experimental study compared the foot self-care behaviors of 167 patients randomized into one of three groups who received usual care, a lower extremity amputation (LEA) risk assessment or LEA risk assessment plus a brief intervention. Baseline assessment of demographics, diabetes history, diabetes self-care behaviors and diabetes self-efficacy were completed. At the one-month follow-up, a research assistant masked to group assignment completed assessments of diabetes self-care behaviors and diabetes self-efficacy on 144 (84%) patients.

Results: There was a significant difference in observed foot self-care behaviors between groups (F(2,135) = 2.99, p < .05), as well as a significant difference in baseline and follow up self reported foot self-care behaviors for the intervention group (t(47) = -4.32, p < .01) and for the control group (t(46) = -2.06, p < .05). Baseline diabetes self-efficacy was significantly correlated with both baseline (r = .335, p < .001) and follow up (r = .174, p < .05) self reported foot self-care behaviors.

Conclusions: Our findings suggest a trend towards greater improvement in self reported foot self-care behaviors after a brief intervention at one month follow up with significant differences between groups for observed foot self-care behaviors. Recommendations for brief interventions and future research directions are suggested.

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Paper Session #30 5:54 PM–6:12 PM

A RANDOMIZED-CONTROLLED TRIAL OF ENHANCED DEPRESSION TREATMENT: EFFECTS ON DIABETES SELF-CARE AND MEDICATION ADHERENCE

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Diabetes self-management is essential for glycemic control and complication prevention. Diabetes patients with depression have elevated glycemic index, more complications and less self-management than non-depressed counterparts.

A randomized controlled trial assessed effects of enhancing depression treatment among 329 primary care patients with diabetes and depression (mean age = 58.5 years, 65% women). Intervention patients received depression management including pharmacotherapy, problem-solving therapy or a combination. Controls received usual care. Depressive symptoms (SCL-20), Summary of Diabetes Self care Activities, and self-efficacy for diabetes management were measured at baseline, 6 and 12 months. Automated pharmacy refill information provided medication adherence data. Mixed regression models compared intervention and control groups at baseline, 3, 6 and 12 months.

When compared to usual care controls, enhanced depression treatment improved patient adherence to antidepressant medications in the first 6 months [OR = 4.15 (95% CI 2.28, 7.55)] and second 6-month period [OR = 2.90 (95% CI 1.69, 4.98)]. Intervention patients had less depression severity over time (z = 2.84, p < .004). However, the intervention group did not experience better glycemic control (HbA1c). Enhanced depression care did not improve diabetes self-care behaviors such as nutrition, exercise, checking blood glucose, adherence to oral hypoglycemic, lipid lowering and antihypertensive medications, or self-efficacy for managing diabetes.

These results suggest that, in addition to depression treatment, better health behaviors and outcomes are likely to require direct targeting of specific behaviors tailored to individual patient’s role in diabetes management.

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ROLE OF MASTERY AND STRESS IN THE DIABETES-FUNCTIONAL LIMITATION PATHWAY

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This study examined the association of mastery and perceived stress on components of the diabetes-lower extremity functional limitation pathway. Subjects were a community-based sample of 749 Mexican American (MA) and European American (EA) elders, 65+ years old, who participated in the San Antonio Longitudinal Study of Aging (SALSA). Lower extremity functional limitation was measured with the Lower Extremity Physical Performance Battery [LEPPB]). Potential pathway components included cardiovascular diseases (hypertension, myocardial infarction, angina, stroke), cardiopulmonary impairments (left ventricular hypertrophy [LVH], peripheral vascular disease [PVD]), forced expiratory volume at 1 second [FEV1]), and musculoskeletal impairment in lower extremity strength [LW_STR]. A structural equation modeling approach identified the specific cardiovascular diseases and impairments linking diabetes to LEPPB, and identified the association of mastery and perceived stress with variables in this pathway. The final model provided a good fit to the data in both ethnic groups (CFI = .964, RMSEA = .043, [90CI = .31-5.54]). Significant pathway components included hypertension, PVD, LVH, FEV1, and LW_STR. Higher mastery was associated with lower levels of perceived stress and was independently associated with greater LW_STR and better LEPPB. Perceived stress had no direct association with LEPPB but was indirectly associated with LEPPB via its associations with hypertension and LVH. If confirmed with longitudinal data, findings suggest that behavioral interventions to improve mastery and reduce perceived stress can lead to improved LEPPB in MA and EA elders even in the presence of diabetes.

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NINE-MONTH OUTCOMES OF A SCHOOL-BASED INTERVENTION TO PROMOTE PHYSICAL ACTIVITY AMONG SEDENTARY ADOLESCENT FEMALES: PROJECT FAB

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Sedentary adolescent females face an elevated risk of health problems related to physical inactivity. This study evaluated the impact of a nine-month school-based intervention designed to increase physical activity in this population. Sedentary, unfit adolescent females (M = 15.04 years) of mixed ethnicity (57% Caucasian) were assigned to a comparison (n = 59) or intervention (n = 63) group based on school attended. The intervention consisted of supervised in-class physical activity (4 days/week for 40 min), health education, and internet-based self-monitoring. The comparison group participated in assessments only. Cardiovascular fitness (VO2 peak via bicycle ergometer), body composition (via dual x-ray absorptiometer; DEXA), physical and lifestyle activity (via self-report), and psychosocial influences on exercise (i.e., self-efficacy, perceived barriers, perceived benefits, social support, and enjoyment) were measured at baseline, 4 months, and 9 months. Data were analyzed using repeated measures ANOVAs for continuous variables, and logistic regression for hard activity (scored as a dichotomous variable). The intervention had a significant impact on cardiovascular fitness (p < .01), and moderate (p < .05), and hard (p < .01) activity. All changes were in a direction that favored the intervention. There was no effect of the intervention on percent body fat, lifestyle activity, or psychosocial factors related to exercise, except for perceived barriers, which increased in the intervention group. A school-based intervention targeting sedentary adolescent females can increase physical activity and cardiovascular fitness, and these changes do not appear to be mediated by psychosocial variables.

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OUTCOMES OF A PRIMARY CARE AND HOME-BASED INTERVENTION ON PHYSICAL ACTIVITY AND NUTRITION BEHAVIORS: PACE+ FOR ADOLESCENTS

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Recent increases in obesity in childhood and adolescence have made development of methods to improve physical activity (PA) and nutrition behaviors in childhood a high priority. This study evaluated the 12-month outcomes of the Patient-centered Assessment and Counseling for Exercise + Nutrition (PACE+) program with 878 adolescents (age 11-15, 54% girls, 58% white). PACE+ integrates a computer assessment and tailored progress planner, provider counseling, and 12 months of phone and mail behavior change guidance. Intervention components were tailored to stage of change for PA, sedentary habits (SH), dietary fat (DF), and fruit and vegetable intake (FV). Adolescents, recruited at 6 healthcare clinics through their primary care provider, were randomized to either PACE+ or a control condition. Diet was measured using NDS, and minutes of PA with the CSA accelerometer.

The PACE+ intervention significantly decreased minutes of sedentary behaviors for both girls and boys (p < .01). PACE+ increased girls’ servings of FV and grams of fiber (p < .05), while boys in the PACE+ group showed an overall total energy intake decrease (p < .001). However, a difference between the PACE+ and the control group in the percent meeting PA guidelines, 56% versus 39%, respectively, at 12 months (p < .01) was found for boys but not for girls.

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IMPACT ON DEPRESSION OF A CLINICAL AND INTERNET-BASED WEIGHT LOSS INTERVENTION FOR OVERWEIGHT WOMEN: PACE+ WOMEN IN BALANCE

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Depression is a highly prevalent condition that is a major contributor to the burden of disease, and often inadequately treated. Research has shown that depression can be reduced through cognitive behavior therapy delivered via the internet. Studies have also shown that physical activity (PA) and weight loss can help depressed patients. This study evaluated whether depression scores improved among women enrolled in PACE+ Women in Balance (PACE+), a clinical, phone, and internet-based intervention aimed at promoting weight loss through improved PA and diet behaviors. A total of 401 overweight women were randomly assigned to the 12 month PACE+ intervention or to usual medical care. The target behaviors were increasing PA, fruit and vegetable intake, fiber intake, and decreasing dietary fat, measured at baseline, 6 and 12 months. Depression was assessed at the same time by the CES-D. For women with data available at baseline and 12 months (n=285), linear regression analysis on changes in CES-D T-scores, indicated there was a significant intervention effect (p<.03), controlling for age, education, marital status and employment. Participants who received the PACE+ intervention reported improved depression scores. Adjusted means were -0.7 for the PACE+ intervention group compared with 1.4 for the control condition. Future studies should investigate the effect of such an intervention on depressed patients.

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APPLYING A STEPPED-CARE APPROACH TO THE TREATMENT OF OBESITY

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In a stepped-care approach to treatment, more intensive interventions are implemented when less intensive interventions prove to be insufficient. Forty-four obese, sedentary adults (88.6% Female; 88.6% Caucasian) were randomly assigned to a behavioral weight loss program (BWLP) with stepped-care (SC; i.e., problem-solving therapy) or a BWLP. Participants in the BWLP + SC condition were stepped-up to more intensive treatment when poor progress toward weight loss goals was detected (i.e., when individuals failed to achieve pre-established minimum weight loss goals). Participants in the BWLP + SC lost significantly more weight and body fat, reported greater physical activity and greater improvements in diet (ps < .05). Participants in the BWLP + SC who received problem-solving therapy also evidenced superior treatment outcomes compared to BWLP participants matched on SC eligibility (ps < .05). Compared to BWLP + SC participants, significantly more BWLP participants did not meet their minimum weight loss goals during at least one weight assessment throughout treatment and did not meet their final minimum 8% weight reduction goal (ps < .05). A BWLP + SC may improve treatment outcomes as well as increase participant motivation to achieve pre-established weight loss goals. Results from the current investigation were quite promising and suggest that the application of SC principles to the treatment of obesity may have considerable merit.

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EFFECTIVENESS OF TRANSTHEORETICAL MODEL-BASED INTERVENTIONS ON EXERCISE AND FRUIT AND VEGETABLE CONSUMPTION IN OLDER ADULTS

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The SENIOR Project (Study of Exercise and Nutrition in Older Rhode Islanders), funded by the National Institute on Aging, is a community-based multi-behavioral health promotion intervention study of 1276 older adults (mean age 75.4) designed to increase exercise and fruit/vegetable consumption. The study employed a 2x2 randomized design with the following groups: exercise only, nutrition only, exercise plus nutrition, and control. Interventions, based on the Transtheoretical Model, were delivered during the first 12 months of the project and included manuals, newsletters, expert system assessments/feedback reports, and telephone coaching. Data was collected at baseline, 12 months (N=1,008), and 24 months (N=965). Final 24-month outcomes showed progression to action/maintenance for exercise was greater for all treatment groups (44%) relative to controls (26%, p<.001). Progression to action/maintenance for fruit and vegetable consumption did not differ among groups. However, there was an increase in the reported number of servings of both fruits and vegetables for individuals receiving the fruit and vegetable intervention compared to those that did not (p<.001). Results will be interpreted within a multiple-behavior intervention framework focusing on overburdening, enhancement, and additivity hypotheses. Applications of methods and implications of results for other multibehavioral research will be discussed.

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MEDICALLY UNEXPLAINED ILLNESS IN SHORT- AND LONG-TERM DISABILITY APPLICANTS: PREVALENCE AND COST OF SALARY REIMBURSEMENT

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Similarly to medically explained illness, work disability ranges from 26% to 57% in clinical samples of Medically Unexplained Illness (MUI) such as Fibromyalgia, Chronic Fatigue Syndrome, and Chronic Back Pain. While MUI has shown a chronic and disabling course in clinical settings, there is little evidence that these syndromes are accepted by third-party payors as the basis of short- or long-term disability. At issue in the present study were a) the prevalence of MUI in disability applicants; and b) the cost of salary reimbursement for disability recipients. Using a retrospective cohort analysis of short-term disability recipients at a large insurance company (N=21,058) we determined the prevalence of MUI, explained medical illness and psychiatric illness as causes of long-term disability (LTD). Claimants with the same LTD policy were included in the analysis. Primary diagnoses of MUI were less prevalent than community rates would predict. However, a higher prevalence of MUI diagnoses was found when considering primary and secondary diagnoses. Rates of psychiatric comorbidity were higher for those with medically unexplained than explained disorders. Medically explained and unexplained disorders have similar rates of LTD application and both achieve LTD at about the same rate. Psychiatric diagnosis was associated with the highest per capita salary reimbursement costs projected to age 65 years. Aside from Low Back Pain, Fibromyalgia is the single most expensive MUI with total salary reimbursement costs comparable to Chronic Ischemic Heart Disease.

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DENTAL HOUSE CALLS: MOBILITY AND HEALTH INFLUENCE OBTAINING REGULAR DENTAL EXAMS

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Studies have demonstrated serious consequences of reduced access to dental services for the elderly. This study examined the possible impact of more available mobile dentistry by defining the association between mobility (ability to independently drive or use public transportation) and getting regular dental exams. Logistic regression was used to predict whether people reported having regular dental exams using age, gender, education, ethnicity, health symptom status, mobility, physical activity limitations, social activity limitations, depression, anxiety, having oral pain or bleeding, and whether they had dental insurance as independent variables. 74.51% of 255 primary care patients who participated had regular dental exams. Logistic regression was used to find the best multivariate model of factors related to having an exam. The four variables in the best final model were mobility, higher education, fewer physical symptoms, and having dental insurance, $p<.05$ for all. As expected, dental insurance was a strong predictor of having an exam, $R=.1528$, $p=.0031$. However, mobility was the strongest predictor, $R=.3522$, $p<.00005$. More education, $R=.2201$, $p=.0002$, and fewer or less severe health symptoms, $R=.2105$, $p=.0002$ were also related. These results suggest that dental health policymakers examine the cost effectiveness of providing mobile preventive dentistry to avoid more severe oral problems in the elderly, who may be less likely to get exams because of limited mobility.

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SICKLE CELL DISEASE (SCD): A NEED FOR INVOLVEMENT IN THE HEALTHCARE POLICY ARENA

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With changes in healthcare policy, delivery, and funding occurring daily, there is a new and growing need for patients to become consumers and advocates for their care. Patients with many chronic diseases have accepted this new responsibility and have become advocates for changes in policies, both at the local, state, and national levels. There is an interest in assisting patients with Sickle Cell Disease (SCD) towards self-advocacy but there are few empirical studies with the population to guide the process. We assessed self-advocacy behaviors and beliefs that may influence these behaviors in fifty adult patients with SCD.

Sixty-four percent of patients reported that they rarely feel powerless to accomplish tasks in their lives or feel that their situations are hopeless. Fifty-seven percent of patients reported that they rarely feel “downtrodden,” and ninety-percent of patients reported that they rarely feel powerless to accomplish tasks in their lives or feel that their situations are hopeless. Fifty-seven percent of patients reported that they rarely feel powerless to accomplish tasks in their lives or feel that their situations are hopeless.

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BENEFITS OF AN EXERCISE-BASED CARDIAC REHABILITATION PROGRAM IN WOMEN

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Background: Although the incidence of cardiac disease has increased in women, little is known about the benefits of post-hospital cardiac rehabilitation (CR) for females. The purpose of this study was to compare the treatment effectiveness of a Phase II CR program for women and men. Methods: Women ($n=43$) and men ($n=159$) with a variety of cardiac diagnoses were enrolled in a phase II CR program. They were compared across a number of variables, including weight, exercise capacity, nutritional status, quality of life (QOL), and medical history. Variables were measured before and after the 12-week exercise-based treatment. Results: Upon entry into the program, women were more likely than men to have never smoked cigarettes, be on an antidepressant medication, and have diabetes. No significant differences existed between women and men in terms of exercise adherence, leading to similar weight loss and positive quality of life changes. Only the total amount of change in exercise capacity differed between the two groups, with men increasing their tolerance more than women; however, the relative change between the two groups did not differ. Women and men reported improvement on measures of QOL after CR, with no significant difference in incremental gains between the two. Conclusion: Although men are more frequently referred to phase II cardiac rehabilitation programs, there appears to be no significant differential benefit for women and men from an exercise-based program. Both groups improved their exercise capacity, lost weight, and experienced gains in physical and emotional quality of life.

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RESIDENTS’ PREPAREDNESS AND TRAINING TO DELIVER CROSS-CULTURAL CARE: A QUALITATIVE STUDY

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The Institute of Medicine report “Unequal Treatment” cited cross-cultural training as a mechanism to address racial and ethnic disparities in care, but little is known about residents’ preparedness to provide quality care to diverse populations. The purpose of this study was to explore residents’ 1) preparedness (knowledge, awareness, and skills) to deliver cross-cultural care; 2) educational climate; and 3) training. Seven focus groups and 10 individual interviews were conducted with 68 residents, from 7 specialties, in the U.S. Groups and interviews were recorded and transcribed. Thematic content analyses were performed. 59% of participants were female. Half were Caucasian; 9% were Hispanic, 10% Black, and 21% Asian. Most residents appreciated the importance of cross-cultural care yet lacked clear notions of what it was they were supposed to achieve. Many felt the need to increase their own self-awareness and acquire knowledge about patients’ cultural norms and family structure. Some reported that they had developed skills for working with diverse patients (assessing patients’ comprehension and illness beliefs). Many learned through informal mechanisms and wanted more formal training in cross-cultural care (communication/idiom training, working with interpreters). They also recommended informal training (community practice, multidisciplinary staff). Although there was an overall sense of institutional endorsement for cross-cultural care, the sense was that this was a low priority. There is little formal training for residents in cross-cultural care. Residents obtain cross-cultural skills while on the job and so have developed coping behaviors, rather than skills based on best practices. Training environments need to augment training mechanisms to enhance residents’ preparedness to deliver cross-cultural care.

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MACRONUTRIENT INTAKES IN THE SOUTHERN COMMUNITY COHORT STUDY (SCCS): BASELINE DIFFERENCES BY SEX AND RACE

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Dietary intake is measured using a custom-designed food frequency questionnaire (FFQ) in the SCCS, an epidemiological investigation of health disparities between Blacks and Whites in the southern United States. In phase 1, participants were recruited at community health centers in seven southeastern states. The FFQ, administered in person by an interviewer, consists of 89 foods and beverages commonly eaten by Southerners. Computer software is used to estimate usual daily intake for total energy, macronutrients, micronutrients, food groups, and energy-adjusted nutrients. After eliminating extreme outliers (6.1%), 19,941 cases (83.2% Black, 15.2% White, 58.1% female, 52 ±8.9 years old, 61% < $15,000/year income) were analyzed using analysis of covariance with gender and race (Black, White, Other) as factors and age and income as covariates. Dependent variables were total energy, macronutrients, and % of energy from macronutrients. There were significant main effects for gender and race along with significant effects for the covariates of age and income for total energy, carbohydrates, protein, and total fat with no interaction effects. For percent of energy from fat, there were race but not gender effects. For percent of energy from protein and carbohydrate there were gender but not race effects. Establishing differences by race and gender on macronutrient intakes at baseline is essential in interpreting later prospective analyses of disease outcomes.

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PSYCHOLOGICAL RESISTANCE FACTORS AS PREDICTORS OF HEALTH PERCEPTIONS AND PHYSICAL SYMPTOM REPORTING IN A LOW-LITERACY SAMPLE

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Previous studies in college students indicated that Sense of Coherence (SOC), a psychological resistance factor, accounted for significant variability in perceived health and psychological well-being. SOC assesses the extent to which an individual understands and finds meaning in their life situation. The present study examined whether psychological resistance factors also influenced perceptions of health and well-being in a rural, African American sample. Because of the low literacy level of this population, the self report measures were modified by simplifying both the language and response format. The readability indices of the modified instruments ranged from 1.0 to 6.1. The Cronbach’s alpha for the modified measures ranged from .78 to .95. Examination of test-retest reliability in an undergraduate sample indicated that the reliability of the modified instruments did not differ significantly from the original versions. Participants were 50 residents of Wilcox County, Alabama (mean age 36.6±1.50). Data were analyzed with multiple regression analysis. Gender, Sense of Coherence, Ego Resiliency, Spirituality, and Optimism were entered as predictors. Report of more physical symptoms as measured by the PILI was predicted by female gender and lower SOC (R²=.29). Psychological well being (SF-36 GMH) and better perceived health (SF-36 total) were predicted by higher SOC (R²=.52 and .22, respectively). Among the psychological variables examined, Sense of Coherence was the strongest predictor of perceived health, psychological well being, and physical symptoms.

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DEMOGRAPHIC VARIATIONS IN EXPOSURE TO ETHNICITY-RELATED MALTREATMENT

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Recently investigators have suggested that ethnicity-related maltreatment (i.e., racism) contributes to racial disparities in health. Available data on demographic variations in exposure to racism are inconsistent. Some of the variations may be a function of the dimensions of maltreatment assessed.

Participants included 114 Black women and 56 Black men with a mean age of 40 years. Racism was assessed with the Perceived Ethnic Discrimination Questionnaire – Community Version (PEDQ-CV), which includes a measure of lifetime exposure as well as a subscales measuring dimensions of racism. There were no gender differences in lifetime exposure to discrimination (p > .19); however, when the subscales of the PEDQ-CV were examined, men (mean = 2.18) reported more stigmization than women (mean = 1.89; F(1,168) = 4.37, p < .04).

Age was not related to any measure of racism. There were significant education level differences in exposure to workplace discrimination (F(2,154) = 5.22, p < .04) and ethnicity-related threats of violence (F(2,154) = 3.37, p < .04). Individuals with a high school diploma or some college reported more exposure to workplace discrimination but less exposure to ethnicity-related threats of violence than did those with less than a high school education. There were also significant associations of perceived wealth to both lifetime exposure to discrimination (F(2,156) = 3.10, p < .05) and workplace discrimination (F(2,156) = 3.10, p < .05). Demographic variations in exposure to ethnicity-related maltreatment may influence health status.

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FACTORS INFLUENCING PHYSICIANS’ CANCER SCREENING RECOMMENDATIONS FOR OLDER CHINESE-AMERICAN WOMEN

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PURPOSE: To investigate factors associated with physician recommendations of breast, cervical, and colorectal cancer screening for older Chinese-American women.

METHODS: A total of 438 Chinese-American women aged 50 and older completed telephone interview on health care and cancer screening experiences. Predictor variables include women’s age and educational level, gender and specialty of their regular doctors, length of physician-patient relationship, and language used during medical visits. Outcome variables were physician recommendations for breast, cervical, and colorectal cancer screening in the past two years. Logistic regressions were used to evaluate associations between predictors and outcomes.

RESULTS: Older age (65+ vs. 50-64) was associated with less physician recommendations for all cancer screening (OR: 0.34–0.51). Chinese women were more likely to have received breast and cervical cancer screening recommendations if their regular doctors were family/general physicians (vs. other types of specialists; OR=2.17 and 1.82, respectively) or they had visited their regular doctors for more than 3 years (OR=1.87 and 2.17, respectively). Women communicating with their regular doctors in English (vs. Chinese) were more likely to receive breast and colorectal cancer screening recommendations (OR=1.96 and 2.04, respectively).

CONCLUSIONS: Physicians do not consistently recommend cancer screening to Chinese-American women. Efforts are needed to encourage physicians to discuss screening guidelines to their elder, newer, and non-English speaking patients.

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SELF-REPORTED HEALTH MEASURE RELATES TO SELF-REPORTED HEALTH BEHAVIORS BUT NOT BMI FOR LATINOS IN CENTRAL NORTH CAROLINA

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To effectively assess the health status of Latino immigrants in central North Carolina, further exploration of the correspondence between a self-rated health measure, self-reported health behaviors, and measured health indicators is required.

Two hundred and three adult Latino immigrants (mean age=31.55, SD=8.36, 55% female) participated in a 15-minute interview investigating diet and physical activity, self-rated health, acculturation and demographic characteristics paired with height and weight measurements. Bilingual interviews and measurements took place at health fairs and a local flea market.

Participants reporting good to excellent health status also reported engaging in physical activity during the past month compared with those who reported fair to poor health status (p < .05). Similar trends were observed for number of fruits and vegetables consumed daily (both p < .05). However, the majority of participants did not meet current diet and physical activity recommendations (16% meeting activity recommendations; mean number of fruits consumed daily=2.12 (1.52); mean number of vegetables consumed daily=1.89 (1.49)). In addition, in contrast to previous studies, self-rated health status did not correlate with body mass index.

These data suggest that more detailed self-rated health measures should be further examined for North Carolina Latino immigrants in relation to an array of self-reported health behaviors and actual health indicators.

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RACE AND INCOME DIFFERENCES IN COMMUNITY ATTITUDES ABOUT DIABETES AND ORGAN DONATION

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Compared to Caucasians, African-Americans and Hispanics are 1.5-3 times more likely to have diabetes and kidney disease. This study examined how attitudes about diabetes and organ donation varied by race and income.

Using random-digit dialing oversampling minority households, we surveyed 1,416 African-Americans (30%), Hispanics (10%), and Caucasians (60%) in Missouri (59% female) about their agreement with diabetes and organ donation statements. After adjusting for disproportionate sampling using data weights, we estimated two logistic regression models comparing: (1) African-Americans with Caucasians, and (2) Hispanics with Caucasians to understand differences by race, income, or their interaction.

Compared to people with ≥$25,000 income, respondents with incomes <$25,000 were less likely to agree that: diet and blood sugar control (OR=0.14, CI=0.05, 0.42), weight control (OR=0.21, CI=0.10, 0.44), regular exercise (OR=0.32, CI=0.13, 0.81), and not smoking (OR=0.59, CI=0.36, 0.98) were important for diabetes care. Compared to others, African-Americans and Hispanics with incomes <$25,000 were less likely to donate their organs upon death (AA OR=0.36, CI=0.26, 0.51; HSP OR=0.21, CI=0.12, 0.68) or through living donation (AA OR=0.42, CI=0.19, 0.96; HSP OR=0.12, CI=0.02, 0.59). Compared to others, African-Americans (OR=2.21, CI=1.18, 4.14) and Hispanics with incomes ≥$25,000 (OR=6.61, CI=1.52, 28.79) were more likely to agree that community diabetes education was needed.

Tailored education is needed to address confusion regarding key diabetic healthcare concepts and to promote organ donation.

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GLYCEMIC CONTROL AND REGIMEN PRESCRIPTIONS IN MINORITY YOUTHS WITH TYPE 1 DIABETES

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This study documents the glycemic control and insulin regimens of an ethnically diverse group of youth with type 1 diabetes. The sample consisted of 155 youth (83 girls) ranging in age from 5 to 17 years (mean=10.9) who recruited from two clinics. Forty-nine percent were White non-Hispanic, 39% Hispanic, and 12% Black. Mean HbA1c was 139.54% above the upper limit of normal and mean diabetes duration was 4.6 years. Fifty-six percent were prescribed insulin pump therapy and 52% were prescribed more than one injection daily.

ANOVA (p<0.001) indicated Black (mean=204.34%) and Hispanic (mean=140.58%) youths had poorer glycemic control than White youths (mean=125.12%). ANOVA (p<0.05) also revealed Black (mean=2.3) and Hispanic (mean=2.4) youths were prescribed fewer daily injections than White youths (mean=2.9). Chi-square analyses (p<0.001) indicated that minority youths were more likely to be treated in a university-based clinic rather than a community-based clinic. Minority youths were also less likely to be prescribed insulin pump therapy (p<0.01).

These findings suggest that poorer glycemic control of minority youths may be accounted for in part by less frequently prescribed intensive insulin regimens. Future studies are needed to determine the extent to which these differences in regimen prescriptions may be contributing to the striking disparity in glycemic control.

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GLYCEMIC CONTROL AND REGIMEN PRESCRIPTIONS IN MINORITY YOUTHS WITH TYPE 1 DIABETES

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PSYCHOSOCIAL MEDIATORS IN THE BODY AND SOUL EFFECTIVENESS TRIAL

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Given health benefits of diets rich in fruits and vegetables (FVs), culturally appropriate interventions designed to encourage African Americans to increase FV intake could reduce the burden of chronic disease in this population. Body and Soul, a cluster randomized trial implemented in 15 African American churches (n = 854), was shown to significantly increase FV intake. To better understand what factors explained change in behavior, this study evaluated the effects of the Body and Soul intervention on psychosocial mediators of change in FV intake.

The primary outcome of FV intake and psychosocial mediators were measured at baseline and 6-month follow-up. The effects of the intervention on hypothesized mediating variables and subsequent dietary change was tested using structural equation modeling.

Results indicated that the intervention had direct effects on social support (.29), self-efficacy (.09), and intrinsic motivation (.30) and these variables also had direct effects on F&V intake (.12, .59, .20 respectively). These psychosocial variables were found to partially mediate the effect of the intervention on FV intake, as indicated by a reduced association of treatment and FV status when they were included in the path model. The results support the use of strategies to increase social support, self-efficacy, and intrinsic motivation in dietary interventions among African American adults in churches.

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E-13 Citation Poster

2005 Annual Meeting Supplement S137
E-14

PSYCHOSOCIAL FACTORS RELATED TO CARDIOVASCULAR DISEASE RISK IN UK ASIAN MEN: A PRELIMINARY STUDY

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Coronary heart disease (CHD) mortality is significantly higher in UK Asian Indians than in people of white European origin. Conventional risk factors, including smoking, hypercholesterolemia, and hypertension, do not appear to account for this difference. Social and psychological variables contribute to CHD risk, but there has been little research on the psychosocial profiles of UK Asian Indians. This study compared the exposure to psychosocial factors associated with cardiovascular risk in UK Asian and white European men. A population-based, cross-sectional study was carried out with 63 healthy Asian Indian and 42 white men aged 35-75 years, randomly selected from a larger study group in West London. Face-to-face interviews were conducted to assess psychosocial and cardiovascular risk factors. Group comparisons revealed that UK Asian Indians, despite having higher educational attainment (p < .05), lived in significantly more crowded homes (p < .05), experienced lower job control (p < .05), greater financial strain (p < .05), lower neighbourhood social cohesion (p < .05), and more racial harassment (p < .05), than did white Europeans. They received less emotional support (p < .05), and were more depressed (p < .001) and less optimistic (p < .001) on standard questionnaires. Asian Indian men also had higher waist/hip ratios (p < .05) and were more sedentary (p < .01). These preliminary results are consistent with the possibility that psychosocial adversity contributes to the heightened vulnerability to CHD of UK Asian Indians.

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E-15

UNDERSTANDING THE MEANING OF HYPERTENSION

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Background: When treating African-American patients with hypertension, physicians often rely upon their own perceptions regarding the etiology and treatment of hypertension. Understanding the patient’s perception of their illness is essential to providing culturally appropriate care.

Purpose: Among African-Americans with hypertension, the objective of this study was to elicit their experiences and perceptions regarding the meaning and treatment of hypertension.

Methods: In-depth structured interviews were conducted with a purposive sample of 60 ambulatory patients. Interviews were audiotaped, transcribed verbatim, and analyzed using grounded theory. Responses were corroborated by independent investigators.

Results: Three major themes emerged from the analysis: the role of family, the influence of symptoms, and medication side effects. The meaning that patients ascribed to hypertension was influenced by their personal experiences and those of their friends and family. Patients with family members who had experienced hypertension-related complications such as a stroke, were more likely to view hypertension as a serious condition. Patients who had personal experience with hypertension-related symptoms and who suffered the consequences of hypertension were more likely to describe a willingness to make lifestyle changes. Patients who experienced medication side effects were more likely to describe hypertension as having a negative impact on their lives.

Conclusions: In this study, personal experiences as well as experiences of family and friends influenced patients’ perceptions of hypertension and their willingness to make lifestyle changes. These multiple factors that influence how patients view their illness can be used as a framework for tailoring effective, culture-specific interventions.

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E-16

ETHNIC DIFFERENCES IN ROLES OF NONDIRECTIVE AND DIRECTIVE SOCIAL SUPPORT: A PRELIMINARY STUDY

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Among adult samples, Nondirective support (cooperating without “taking over”, accepting feelings and choices) is generally more highly correlated with disease management and quality of life than Directive support (taking control, prescribing “correct” feelings and choices). Given the extent to which social support may be socially constructed, possible ethnic differences are of considerable interest. Among 737 undergraduates, no differences in Nondirective Emotional, Nondirective Instrumental, Directive Emotional, or Directive Instrumental support emerged among African American, Hispanic, and non-Hispanic Caucasian (NHC) groups (r = .849). However, differences did emerge in the relationship of Directive Emotional support with quality of life (QOL) based on ratings of mood and satisfaction with key social roles. In contrast to adult samples, Directive Emotional support was generally positively correlated with QOL (partial correlation = .17, p < .01), controlling for other measures of support and age). Positive relationships with QOL were also observed among NHC students (partial correlation = .18, p < .001) and African American students (partial correlation = .41, p < .05). However, among Hispanic students, high levels of Directive Emotional support were associated with lower QOL (partial correlation = -.49, p < .05). Additionally, the relationship between Nondirective Instrumental support and role satisfaction was positive and considerably stronger for Hispanic students (partial correlation = .49, p < .05) than for African American (partial correlation = .05) or NHC students (.17 p < .001). These findings are paradoxical in light of past studies that suggest Hispanics prefer directive forms of supportive contact.

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E-17

HEADACHE PAIN SEVERITY IN AFRICAN AMERICANS AND WHITES WITH HEADACHE DISORDERS

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Objective: Data delineating race differences in persons living with headache disorders are limited. This study examined relationships among race, psychiatric comorbidity, headache characteristics, and Social Cognitive Theory related constructs.

Method: Participants were 71 Whites and 40 African Americans (mean age=36.9 years, 86% female) recruited from four headache treatment centers in Ohio: Columbus, Cincinnati, Cleveland, & Toledo. Participants completed face-to-face interviews that collected data on headache characteristics, psychiatric comorbidity, social support, headache locus of control, headache self-efficacy, and social support.

Results: African Americans (55%) were more likely than Whites (32%) to report chronic tension-type headache, X²(1)=2.9, p < .08, while Whites (74%) were more likely than African Americans (50%) to experience episodic migraine without aura, X²(1)=3.8, p < .05. African Americans were more likely than Whites to be diagnosed with major depression, dysthymia, and anxiety disorder NOS (all p < .05). A regression analysis determined if race predicted headache pain severity above-and-beyond the prediction provided by demographic variables and SCT-related constructs. In Block 1 (age, gender, education, income, presence of comorbid psychiatric condition), lower annual income predicted headache pain severity (beta = - .199, p < .05). No psychosocial predictors (social support, self-efficacy, and internal locus of control) predicted headache pain severity in Block 2. In Block 3, African Americans reported significantly greater pain severity than Whites (beta = -.264, p < .003). F(2, 122)=3.2, p < .05.

Discussion: SCT-related constructs are poor predictors of headache pain severity in individuals with headache disorders while being African American is a strong predictor of headache severity, even when accounting for demographic and psychosocial characteristics related to headache pain severity.

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E-18

NONSMOKERS HELPING SMOKERS TO QUIT AND THE ROLE OF CULTURE: A PILOT STUDY
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Social support is important with behavioral change and has been shown to be helpful in smoking cessation. However, how nonsmokers, or proxies, actually help and can potentially help smokers to quit is rarely studied in smoking cessation. An ongoing pilot study (N=1089) is being conducted at the California Smokers’ Helpline, which works with both smokers and proxies who call on behalf of smokers. The Helpline offers services in English, Spanish, Chinese, Korean, and Vietnamese. Thus, this pilot study is an opportunity to work with a diverse population and to examine possible cultural differences. The rates of proxy calls on the languages lines differ, with 6% of total calls on the English line and 45% of total calls on the Chinese lines. Most of the proxies who call are female (76%) and most are nonsmokers (90%). During the presentation, information from the different language and ethnic groups will be presented about who the proxy callers are, how they are related to the smokers, and what they have been doing naturally to help the smoker quit, in addition to calling the Helpline for help. Additionally, the role of culture will be discussed in the context of designing interventions to use with nonsmokers helping smoker.

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E-19

DIFFERENTIAL EFFECTS OF SMOKING CESSATION PLUS WEIGHT CONTROL TREATMENT FOR AFRICAN AMERICAN AND CAUCASIAN WOMEN
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African-American and Caucasian women differ in their patterns of smoking and post-cessation weight gain. The present study, a reanalysis of data presented elsewhere (Spring et al, 2003, in press), examined whether ethnicity influenced the optimum treatment condition (N = 304; 32% African-American) in a trial of behavioral smoking cessation and weight control treatment. All participants received 16 weeks of smoking cessation treatment and followed for 6 months. The Early Diet (ED) group received weight management during the first 8 weeks of smoking cessation treatment, whereas the Late Diet (LD) group received weight management during the final 8 weeks. Controls (CT) received weight counseling at week 16. Mixed-effects regression models showed that, among Caucasians, ED was consistently superior to CT for both weight control ([p > .001] and cessation ([p > .016). No significant benefit of ED was observed in the parent trial. In contrast, results for African-Americans paralleled those of the parent trial: neither ED nor LD was significantly superior to CT for smoking cessation. Also, for both ethnic groups, LD suppressed weight gain over time relative to CT ([p > .024). A delayed weight control intervention optimally suppressed post-quit weight gain for both groups. However, an early diet intervention also suppressed weight gain for Caucasian women and heightened their quit rate. Delaying weight control relative to smoking cessation may be the optimal timing for African-American female smokers, whereas Caucasian women appear to benefit from simultaneous cessation and weight control.

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E-20

MOTIVATIONS AND EXPECTATIONS FOR WEIGHT LOSS: ETHNIC COMPARISONS AMONG WOMEN FROM RURAL COMMUNITIES
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The prevalence of obesity in the U.S. varies by gender, ethnicity, and level of urbanization, with the highest rates exhibited by black women from rural areas. Unfortunately, lifestyle interventions for weight-loss programs seem to have less success with black than white participants. This has prompted an effort to better understand possible cognitive factors that may play a role in differential program success. This investigation examined motivations and expectations for weight loss in black and white women from rural communities. Participants included 71 white and 23 black women (BMI = 37.0 ± 5.0; age, M = 58.4 ± 6.2 years) who volunteered to take part in a lifestyle weight-loss program. Prior to treatment, participants completed questionnaire assessments of motivating factors for weight loss and the amount of weight change expected in treatment. Compared to black women, white participants were motivated to lose weight to a greater extent by goals of improving their physical attractiveness (MS = 19.2 ± 3.6 vs. 22.2 ± 3.8, p = .001) and increasing their self-confidence (MS = 14.2 ± 3.1 vs. 16.1 ± 3.3, p = .014). In addition, white women tended to be more motivated by weight-related social anxiety as compared to black women (MS = 22.7 ± 5.9 vs. 20.0 ± 6.4, p = .068). There were, however, no between-group differences in expectations for weight loss (all ps > .05). These results suggest that, while both groups have similar expectations for weight loss, the objectives that motivate weight change differ significantly between black and white women.

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E-21

IDENTITY DEVELOPMENT IN RURAL MSM
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Previous research has examined the role of social factors, such as family, religion, and peer support, as well as intimate relationships in identity development among mostly urban MSM. Issues in identity development for rural MSM may be exacerbated by isolation, the conservative nature of rural areas, as well as increased stigma. This study examined identity issues of rural and urban MSM through a qualitative study of 40 rural MSM and an online questionnaire with 3280 rural and urban MSM. Focus groups and individual interviews with rural MSM revealed social isolation, support, and the rural hostile environment as specific issues in identity development. The Internet study included 3280 rural and urban MSM recruited through Internet banner ads, participants completed online questionnaires about their perceived social support as well as the Lesbian, Gay, Identity Scale (LGIS; Mohr & Fassinger, 2000). Analysis of variance revealed no significant differences in sense of identity between urban and rural MSM.

Results suggest that lack of social support may lead to a perceived need for attention in MSM. This may lead some men to engage in risky sexual behaviors thereby increasing their chances of acquiring HIV and/or STDs. In addition, poorly formed identity may also increase this risk. Efforts to increase social support and minimize perceived hostility and isolation may be effective in reducing high risk behaviors.

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LATINO HIV-POSITIVE SMOKERS: MOTIVATIONS AND PSYCHOSOCIAL BARRIERS TO QUITTING

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Nearly 38 million Latinos live in the US, representing the largest US ethnic minority group. Latinos are disproportionately affected by HIV, making up 13% of the US population, yet accounting for 18.5% of all AIDS cases. Possible contributors to this increased risk include: higher poverty rates, limited healthcare access/use, higher substance abuse rates, limited knowledge of HIV and it’s transmission, and culturally specific views of prevention. Cigarette smoking is highly prevalent among HIV+ individuals and poses unique health risks to those with HIV. An anonymous survey was completed by 203 HIV+ Latinos attending Immunology clinics in New England. 54.8% of the sample was male, averaging 40.5 years (sd=10.6). Over 80% of participants reported they were born outside of the US. The majority had less than or the equivalent of a high school education (80.5%) and were unemployed (73.6%). Cigarette smoking was endorsed by 54.2% of the sample - a smoking rate more than double that of both the general population and Latinos- with 56.9% smoking 10 or fewer cigarettes per day (cpd). Participants reported smoking an average of 65.7 minutes after waking (sd=139.8), and 69.4% lived with at least one person who currently smokes cigarettes. Over three-quarters of the sample were motivated to quit. The majority (71%) preferred trying NRT over other methods and almost three-quarters (73.4%) thought favorably of inclusion of a social support in their quit attempt. Results will be discussed relative to intervention components that may be appropriate in assisting HIV+ Latino smokers in quitting.

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PLURALISTIC IGNORANCE OF ONLINE SEXUAL BEHAVIORS IN MSM

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Pluralistic ignorance (PI) is a psychological state in which personal beliefs and behaviors are more positive or self-serving than beliefs about others (Prentice & Miller, 1993; Bourgeois & Bowen, 2001; Bowen & Bourgeois 2001). The concern is that beliefs about more risky social norms will lead to higher risk behaviors. Finding sexual partners on the Internet has been associated with higher risk for STDs (McFarlane, Bull, & Reitmeijer, 2000). We hypothesized that men who use the Internet to find sexual partner will believe that other men use it more frequently and engage in higher risk sexual behaviors than they themselves do. The sample included 3280 men (79.9% gay, 19.5% bisexual, and 5% identified heterosexual) with ages from 18-84, and an average age of 31.42 years. 34.2% of the sample live in rural areas (<75,000 people). Participants completed online questionnaires assessing demographics, amount of internet use, reasons for internet use, and opinions regarding others’ internet use. Results indicate that while 69% reported using the internet to meet men for sex, they believed that 95% of all MSM did so. Frequency of internet use to find sexual partners also reflected PI with 40.3% men reporting using it weekly, while they believed that 73.4% of others used it weekly. Given that rural MSM are isolated and stigmatized, one might expect increasing use to finding sexual partners, thus risking an increase in both STDs and HIV. The results suggest there is a strong need for Internet based risk reduction efforts.

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WOMEN’S INTERNET USE AND HIV RISK

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Little research has examined Internet using women’s sexual behaviors (Weiser, 2000). Men who have sex with men (MSM) that meet sexual partners through the Internet have shown higher risks for STDs and HIV. The goal of this study was to compare risk factors for women who have met Internet sexual partners with those who have not. We recruited 205 women. The sample was 81.9% Caucasian, 6.3% Hispanic, 5.1% Asian, and 4.7% African Americans, with an average age of 34.8. Participants completed a 98-item questionnaire. Results indicate 40% of the women use it to find friends, 26% to find dates and 2.3% to find a sex partner. Women who later met one or more men in person report a mixture of HIV risk behaviors. These women are more likely to have been tested for HIV in the last 6 months (35% vs. 13%) and to report condom use at first sexual encounters (56.5% vs. 38.1%). But, they also report more STDs (18.8% vs. 8.4%), are more likely to have multiple sex partners (44.2% vs. 17.3%), and are more likely to have casual sex (20.9% vs. 6.2%). 15% reported that they met the man and her/his place at first encounter. These data suggest that, although the women are engaging in some risk reduction behaviors, they continue to put themselves at increased risk for unsafe sex that may result in increased likelihood of HIV and STD.

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HEALTH-COMPROMISING BEHAVIORS AND PREMATURE BIRTH

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To estimate the association between health-compromising behaviors during pregnancy and premature birth, we conducted a retrospective cohort study of 83,685 live births in Kansas City, Missouri, 1990-2002. Information on maternal and newborn characteristics was obtained from birth certificate records. Health-compromising behavior, specifically, smoking, alcohol and drug use, was classified by the numbers and combinations of behaviors engaged in during pregnancy. Covariates included race, age, inter-conception interval, education, Medicaid status, medical risks for premature birth, adequacy of prenatal care, and marital status. The cohort was 16% < 20 y (74%=20-34y, 10%>34y), 45% on Medicaid, 24% with medical risks, and 45% single pregnant women. Overall premature birth rate was 10% and it increased with numbers of health-compromising behaviors – 9.5% (none), 12% (one), 20% (two) and 31% (three), p<0.001. On adjusting for covariates, smoking, alone (OR=1.07, 1.00-1.16) or in combinations with other behaviors (OR=1.37, 1.11-1.68[smoking + alcohol], and 1.29, 1.01-1.66[smoking + alcohol + drugs]), remained the major health-compromising behavior that was predictive of premature birth. Overall, inadequate or marginal prenatal care and maternal medical risks for premature birth were the strongest predictors of premature birth. In conclusion, smoking alone or in combination with alcohol and drug use is associated with premature birth. However, addressing smoking cessation in conjunction with adequate provision and access to prenatal care may have the greatest potential for reducing this perinatal complication.

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ECOLOGICAL MOMENTARY AND DAILY DIARY ASSESSMENT OF STRESS, COPING, MOOD AND CARDIOVASCULAR ACTIVITY DURING WORKPLACE STRESS MANAGEMENT INTERVENTIONS

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Organizational stress management interventions have become increasingly common; however, they have been the target of surprisingly little systematic research, with few evidence-based guidelines for intervention selection. The present study examined the degree and mechanism of effectiveness of two workplace stress management interventions via dynamic (moment-to-moment and day-to-day) changes in stressors, coping, and strain, consistent with current models of work stress. Thirty-two participants were randomly assigned to traditional (i.e., general CBT limited to workplace topics) or organizationally-tailored (i.e., to highest incidence/severity stressors in the participating organization, namely workload and poor communication interventions), or a wait-list control. Daily diaries were completed by stress management program participants during the five-week intervention. All study participants also completed diaries during a one week pre- and post-intervention assessment period, as well as one day of ecological momentary assessment (EMA) recording of mood, stressors, coping, and cardiovascular activity before and following participation in the intervention. Two general hypotheses were examined: (1) daily and momentary relationships would be found between stressors, coping, and acute strain; (2) pre-versus post-intervention changes in daily and momentary strain, stressor intensity, and coping would be found, with tailored program participants experiencing the greatest benefit. These hypotheses were generally supported, although both stress management programs had similarly small effect sizes with regard to preventive and tertiary benefit. The results of the present study suggest a number of potential areas for improvement of workplace stress management programs.

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JOHN HENRYISM AND CARDIOVASCULAR RISK: POTENTIAL BEHAVIORAL AND PSYCHOSOCIAL MECHANISMS

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John Henryism (JH), or high-effort coping, has been linked to positive health outcomes but increased risk for cardiovascular disease (CVD) among low socioeconomic status (SES) Blacks. This preliminary study examined how JH and SES (measured as educational attainment) are associated with various behavioral and psychosocial CVD risk factors (STAXI anger-coping, Duke religiosity index, and job demands/control). 58 healthy Black males (aged 23 to 47) completed a battery of surveys. Two discriminant function analyses were performed: (1) smoking status as a predictor of JH, SES, age, physical activity, and body mass index and (2) various psychosocial risk factors as predictors of the four JH by SES sub-groups. The best predictors for distinguishing the “never smoked” group from the “current smoker” and “never smoked” groups were John Henryism and education [Chi-square(12) = 29.4, p < .003]. The “never smoked” group exhibited higher JH scores (mean = 50.85) than the “used to but quit” group (mean = 48.25) and the “current smoker” group (mean = 48.05). The “never smoked” group also reported a higher mean education level (mean = 15.81) than the “used to but quit” group (mean = 14.75) or “current smoker” group (mean = 13.58). For trait anger-control, high-JH and low-SES persons (mean = 16) scored lower than high-JH and high-SES persons (mean = 23.5) [Chi-square(24) = 48.1, p < .002]. JH may increase risk of CVD among low-SES Blacks by poor management of angry emotions and engagement in risky health behaviors.

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E-29 Meritorious Student Poster

CORTISOL STRESS RESPONSES IN ADULT CHILDREN OF DIVORCE

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Parental divorce in childhood has been associated with negative health outcomes in adulthood. This relation is potentially a result of dysregulated physiological stress response and compromised parenting behaviors. The current study evaluated undergraduate students from divorced and intact families (n = 101, 50 from divorced families, 51 from intact families; 77% Caucasian, 2% African-American, 13% Hispanic, 8% Other; 61 female, 40 male; mean age 20). Cortisol samples were collected at baseline and at 4 time points following an interpersonal speech task. Participants completed self-report items regarding time spent with each parent during childhood, as well as the Caring subscale of the Parental Bonding Inventory (Parker, 1979). Repeated-measures GLM (covariates sex, age, and BMI) were conducted. A significant family group by time with father interaction found that more time spent with fathers predicted lower mean cortisol for participants in the divorced group (p = 0.04). A family group by parental caring interaction predicted mean cortisol (p = .01) and cortisol over repeated measures (p=.05), in which for the divorce group, high caring from the most caring parent was associated with lower mean cortisol and lower cortisol response to the task. For participants from intact families, parental caring was not significantly associated with mean cortisol or repeated measures of cortisol. Findings indicate the importance of parental caring in families of divorce. Feelings of strong caring from at least one parent during childhood were associated with a more adaptive physiological stress response for young adults from divorced families.

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EFFECT OF CONCURRENT STRESSFUL LIFE EVENTS ON ADJUSTMENT TO CANCER SURVIVORSHIP

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The present study explores the effect of concurrent stressful life events on distress and quality of life in the first year of cancer survivorship. Women (n = 558) completing treatment for invasive, nonmetastatic breast cancer participated in this study, which involves analysis of data from the Moving Beyond Cancer psychoeducational intervention trial (Ganz et al., 2004). Prior to randomization, women reported significant stressors were prevalent in the context in which breast cancer occurs and may moderate the impact of coping. They also completed measures of depressive symptoms, affect, energy, and cancer-specific coping and distress. Measures were repeated at 6 and 12 months post-randomization. Controlling for intervention assignment, study site, and initial values on the dependent variable, the occurrence of significant stressful life events concurrent with cancer predicted reduced energy at 6- and 12-month follow-up, though there was no significant effect on depressive symptoms. However, women who had experienced concurrent life stress also reported reduced cancer-specific distress. Results suggest that the experience of stressful life events concurrent with breast cancer may cumulatively tax women’s resources, but may also serve to distract a woman from cancer-specific intrusive thoughts or to otherwise lessen cancer’s impact on her life. In addition, the occurrence of stressful events moderated the impact of coping on adjustment, such that women’s cancer-specific coping processes predicted subsequent distress and energy only among women who had not confronted other significant stressors. Thus, the context in which breast cancer occurs may have important implications for both general functioning and cancer-specific adjustment and may moderate the impact of coping.

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PERCEIVED STRESSORS AND PREFERRED COPING STRATEGIES OF 1076 PATIENTS REFERRED FOR STRESS MANAGEMENT IN A LARGE AMERICAN MEDICAL CENTER

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Behavioral health professionals are frequently asked to treat individuals with stress and stress-related disorders. Effective treatment benefits from an understanding of the stressors and coping strategies of these individuals. For this study, the Brief Computerized Stress Inventory (BCSI) was used to assess the perceived stressors and preferred coping strategies of outpatients in a large Boston area medical center. The subjects were 1076 outpatients referred for participation in stress management groups conducted in the Department of Psychiatry and Behavioral Medicine at the Lahey Clinic in Burlington, Massachusetts. Mean age was 45.1 years, 45% were male, 67% were married, 74% were employed, with a mean educational level of 15.2 years. Physicians, other health-care providers, and patients themselves initiated referrals. The 115 likert-item BCSI was chosen to assess the stressors and coping strategies of these individuals. The BCSI was completed prior to starting the stress program by each of 1076 outpatients referred during the period January 1995 through December 2003, then the Inventories were computer-scored and the data were statistically analyzed. Patients rated their ‘Overall Stress Level’ as well as severity of eight specific ‘Sources of Stress’ as well as how frequently they utilized 15 ‘Coping Strategies’. The top stressor for the sample was ‘Time Pressures’ followed by ‘Inability to Make Life Changes’. Women reported significantly more stress than men in most areas of their lives. ‘Worrying’ followed by ‘Solitary Problem-solving’ were the most frequent coping strategies prior to stress management training, suggesting these patients were appropriate referrals. The results of the study were used to refine program design and better meet patient needs.

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THE RELATIONSHIP BETWEEN NEGATIVE ATTITUDE OF EMOTIONAL EXPRESSION AND MENTAL HEALTH: THE MODERATE EFFECTS OF INDIVIDUALISM AND COLLECTIVISM

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Previous research has revealed that expressing emotions about stressful events could improve one’s health and psychological well-being. However, emotional expression is affected by one’s social context and culture. Individualism emphasizes promoting an individual’s self-interest, personal autonomy, self-realization and independence, while Collectivism places broader social goals ahead of personal goals. This study aimed to demonstrate the possible moderating effects of culture on Individualism and Collectivism, and on the relationship between negative attitudes of emotional expression and mental health. A total of 195 working adults participated in this cross-sectional study and completed a battery of structured questionnaires, which included measures of negative attitude of emotional expression, mental health, and Individualism/Collectivism. The results by hierarchical regression analyses showed that negative attitude of emotional expression had a positive association with mental health (e.g. Somatic Symptoms (β = .46, p<.001), Anxiety and Insomnia (β = -.49, p<.001), Social Dysfunction (β = .48, p<.001), and Severe Depression (β = .24, p<.01)). Besides, Individualism had a negative association with mental health (e.g. Anxiety and Insomnia (β = -.13, p<.1), Social Dysfunction (β = -.14, p<.1)). Collectivism had a positive association with Severe Depression (β = .16, p<.1). Additionally, Individualism could moderate effectively the relationship between negative attitude of emotional expression and mental health (e.g. Anxiety and Insomnia (β = -.13, p<.1), and Severe Depression (β = -.20, p<.05)). In summary, Individualism not only leads to better mental health but also weakens the positive relationship between negative attitude of emotional expression and Anxiety and Insomnia, and Severe Depression. How to enhance the development of Individualism is another important area of further research.

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SOCIAL CONTEXTS OF CYNICAL DISTRUST AMONG AFRICAN AMERICAN ADULTS

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Social contexts such as range and character of relationships and social support may influence dispositional characteristics such as Cynical Distrust (hostility) that pose substantial health threats. Among African American adults (mean age = 53.13 years), Cynical Distrust (CD) was associated with lower scores on both Availability of Social Integration (AVSI) (r = -.36, p = .01) and reported Nondirective support (cooperating without “taking over”, accepting feelings and choices) (r = -.44, p < .001) but with higher ratings of participants’ own anxious-ambivalent (r = .32, p = .02) and avoidant (r = .48, p = .000) attachment styles. Among these social and relationship variables, greater AVSI was associated with lower avoidant attachment (r = -.29, p < .03). Also, AVSI (r = .60, p = .000) was associated with higher levels of Nondirective support but avoidant attachment was associated with lower levels of Nondirective support (r = -.31, p < .02). Entering these variables in multiple regression analysis, avoidant attachment (standardized beta = .39, p < .001) and Nondirective support (standardized beta = -.27, p = .02) were retained as independent, significant predictors of CD, explaining 29% of variance in CD. Thus, variables reflecting social contexts, such as availability of social relationships, type of social support, and attachment style add to understanding of important dispositional characteristics like CD.

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THE ROLE OF SUBJECTIVE NORMS IN COLORECTAL CANCER SCREENING ADHERENCE: TESTING A SOCIAL ECOLOGICAL MODEL AMONG OLDER JAPANESE AMERICANS

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Background: Altering norms may be an important means to introduce and sustain health protective behavior change. The paper argues that (i) normative considerations are more important than attitudinal factors in promoting CRC screening adherence, and (ii) the concept of subjective norm should be treated as a multi-layered construct which involves several key contextual characteristics.

Methods: Structural equation modeling was used to evaluate components within the theories of reasoned action (TRA), planned behavior (TPB), and social cognitive theory (SCT) for understanding CRC screening adherence in a population-based community sample of 341 Japanese Americans aged 50 and over residing in the Greater New York region.

Results: The data fit a mediational model (χ²(127)=209.7, GFI=0.94, CFI=0.97, RMSEA=0.04). The model accounted for 47% of the variance in CRC screening adherence. Among key cognitive variables (family/friend-norms, provider-norms, perceived behavioral control, and perceived benefits), CRC screening adherence was most strongly associated with family/friend norms regarding CRC screening use. Family emotional support, but not the size of the networks, was most positively related to family/friend norms. While having usual source of care was positively and directly associated with screening adherence, better physician-patient relationships positively and indirectly associated with screening adherence via increased perceived benefits.

Conclusions: The findings of this study may have implications for norm change interventions via family networks among older Japanese American communities at high risk for CRC.

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FAMILY WELL-BEING, SUBJECTIVE HEALTH COMPLAINTS AND HEALTH RELATED QUALITY OF LIFE IN THAILAND

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This project studied relationships between indicators of family well-being, subjective health complaints and HRQOL in a sample of 341 twins. The findings demonstrated both similarities and differences in how these factors are linked to CRC screening adherence. Among key cognitive variables (family/friend-norms, provider-norms, perceived behavioral control, and perceived benefits), CRC screening adherence was most strongly associated with family/friend norms regarding CRC screening use. Family emotional support, but not the size of the networks, was most positively related to family/friend norms. While having usual source of care was positively and directly associated with screening adherence, better physician-patient relationships positively and indirectly associated with screening adherence via increased perceived benefits.

Conclusions: The findings of this study may have implications for norm change interventions via family networks among older Japanese American communities at high risk for CRC.

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DAUGHTERS AT RISK FOR BREAST CANCER: THE MODERATING ROLE OF MOTHERS’ COMMUNICATION AND DAUGHTERS’ AGE

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Women at risk for breast cancer face many challenges, including concern about their risk to future generations. Research has demonstrated that family characteristics such as the quality of parent-child communication impact child outcomes. The current study examines the association between mother-daughter health behaviors and cancer beliefs. The quality of mothers’ communication about breast cancer and daughters’ age were tested as moderators of the association between mothers’ and daughters’ health behaviors. Forty-five mother-daughter pairs were recruited from high-risk clinics in Vermont and Tennessee. Mothers and their adolescent and young adult daughters completed a 35-minute videotaped discussion about breast cancer risk, questions about cancer beliefs and completed interviews about their health behaviors. Zero-order correlations showed significant associations (p < .05) between mothers’ and daughters’ health behaviors (i.e., fruit and vegetable intake). Regression analyses demonstrated main effects for mothers’ age predicting daughters’ perceptions of the average woman’s risk for breast cancer (β = .30, p = .05) and daughters’ age of onset of drinking (β = -1.0, p = .05). Mothers’ positive communication moderated the relationship between mothers’ and daughters’ perceptions of risk of the average woman (β = .34, p < .05) such that only in the presence of a high degree of positive communication were mothers’ and daughters’ risk perception associated. Mothers’ age moderated the relationship between mothers’ and daughters’ age of onset of drinking (β = -1.0, p = .05) suggesting that mothers who started drinking alcohol later in life were more likely to have older daughters.

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NEUROCOGNITIVE SEQUELAE OF CHILDHOOD ALL TREATMENT: PRELIMINARY FINDINGS OF A META-ANALYTIC LITERATURE REVIEW

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Numerous empirical studies have reported neurocognitive impairment in children treated for acute lymphocytic leukemia (ALL). However, the consistency and magnitude of treatment effects remains unclear. A meta-analysis was conducted to quantify the neurocognitive sequelae and preliminary results are presented. All samples included were composed of children who completed ALL treatment, never relapsed, and had no pre-morbid learning problems. Effect sizes (Cohen’s d) derived from ten studies indicate that there is no significant effect (d = -0.03) when comparing children who completed ALL treatment to normative data in overall intellectual ability measured by the Wechsler Intelligence Scale for Children. Similar results were found for verbal intelligence (d = -0.04) and performance intelligence (d = -0.11). However, when compared with healthy siblings or peers, medium to large effects for verbal (d = -0.37) and performance (d = -0.66) and overall cognitive ability (d = -0.85) were found indicating poorer performance for children treated for ALL. Data from three studies measuring visual-motor integration with the Beery-Buktenica Developmental Test of Visual-Motor Integration yielded large effects when comparing children treated for ALL with both normative data (d = -0.91) and healthy siblings or peers (d = -1.66). Findings suggest that comparisons with healthy peers or siblings may be more informative than normative comparisons when assessing for neurocognitive sequelae following childhood ALL treatment.

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WHO TRIES TO QUIT SMOKING? MULTILEVEL ANALYSIS OF INDIVIDUAL AND COMMUNITY-LEVEL INFLUENCES

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Attempts at smoking cessation may be influenced by individual characteristics, but community characteristics may also affect whether smokers try to quit. This study employed weighted multilevel logistic regression to examine individual and community-level predictors of serious attempted quitting during the previous year. Data were obtained for 13,668 persons across 49 metropolitan/micropolitan statistical areas (MMSA) from the 2002 Behavioral Risk Factor Surveillance System (BRFSS). Respondents were current smokers (90.7%), or reported having quit smoking within the previous year (9.3%). Individual-level predictors included demographic characteristics and reported barriers to medical care. MMSA-level predictors included poverty rate as indicated by the 2000 census, and smoking rate, aggregated from individual-level BRFSS data within each MMSA. Across all communities, 61.2% of respondents, including 56.2% of current smokers, reported having seriously tried to quit smoking during the previous year. Although generally associated with greater prevalence of smoking, being nonwhite, younger, unemployed, and having barriers to medical care were all associated with greater likelihood of reported quit attempts. Attempted quitting increased with poverty rate (OR = 1.074 for 5% increase, 95%CI = 1.004 - 1.148). Importantly, MMSA smoking rate interacted with educational level. Specifically, college educated persons were unaffected by the smoking rate, but persons with a high school education or less were more likely to attempt quitting where smoking rates were low, and less likely where smoking rates were high. Findings suggest that quit attempts may be driven partly by lack of resources, and that community characteristics influence individual efforts to quit smoking.

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DATING AS A RISK FACTOR FOR SMOKING ESCALATION

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Smoking during adolescence is often linked to social context, and adolescents who smoke are more likely to have a best friend who smokes. Despite the well-studied effects of peers on adolescent smoking, less attention has been paid to the role of boyfriends/girlfriends on youth smoking. Like smoking, “early” dating may be one expression of “riskiness” or attempt at conveying social maturity. The present study examined the association between early dating and smoking escalation. Participants were 562 8th and 10th graders (55% female; 72% White; 53% 8th grade) who completed questionnaires at baseline, 6-, and 12-months. Latent growth curve analyses based on time-line follow-back questionnaires at each time point classified students into 7 groups: never smoked; ever tried; current trier; escaper; rapid escaper; smoker; or quitter. Repeated measures analyses showed that number of dating partners differed significantly across trajectory groups for both 8th and 10th graders, but the majority of the effect was explained by differences between never smokers and all other groups, F (2, 942) = 14.89, p < .01. Among 8th graders, but not 10th graders, having a boy/girlfriend at baseline was significantly related to smoking escalation over time, χ² (6, N = 295) = 16.87, p < .01. The effects of dating were strongest among younger girls; those whose smoking escalated were more likely to report more prior dating partners and to have a boyfriend who smoked than those who did not escalate, p < .05. These results are consistent with the importance of early dating as an indicator of other potential risk behaviors especially among girls.

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E-43

COUNSELING PREGNANT SMOKERS BY TELEPHONE: WHAT MAKES IT WORK?

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Smoking during pregnancy causes an array of problems including spontaneous abortion, low birth weight, learning problems for children exposed prenatally, and even sudden infant death. Quitting smoking is difficult, but pregnancy represents a teachable moment. Women want to give birth to healthy babies and most know the stakes involved. However, women not able to quit on their own face challenges that make quitting especially difficult. Often they are highly addicted, have low incomes, face an unplanned pregnancy, and have less support than other pregnant women.

This paper discusses the empirically validated counseling protocol developed specifically for pregnant smokers at the California Smokers’ Helpline. Here we discuss how common themes are uniquely addressed. Motivation to quit smoking during pregnancy is affected by whether it is a first pregnancy; how “real” the pregnancy feels; and information the woman has received from doctors, friends and family. Counselors must respectfully challenge rationalizations and misinformation, and be alert to the shame some women feel about their behavior. Counselors can help change client belief systems by bolstering self-efficacy, challenging misattributions about success and failure, highlighting the role of deprivation mentality, and reframing the positive expectancy women place on cigarettes. Pregnant callers often have stressful lives, poor life skills, and little support. Counselors help these women make realistic assessments of their social support systems, work on developing their coping skills, and design a solid plan for quitting.

This presentation includes empirical data and ends with insights into what enables counselors to do this work effectively.

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E-44

EFFECTIVENESS OF SMOKING CESSATION PROGRAMS IN TREATING WEIGHT CONCERN IN WOMEN

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It is estimated that smoking kills nearly 500,000 women in developed countries and 300,000 million in developing countries each year. Increased smoking prevalence in women is affected by less social stigma for women smokers and target marketing by the tobacco industry that reinforce cultural and societal beliefs that thinness equals beauty. Women often smoke to control weight and continue because of fear of post-cessation weight gain; this may set the stage for relapse. Thus, there is need for effective smoking cessation programs tailored to address weight concern in women. This review examines the effectiveness of smoking cessation programs in treating weight gain concern in women. The World Health Organization (WHO) electronic database was used to access the following: Pubmed Central, Science Direct, Blackwell Synergy, Ovid: Psychinfo, British Medical Journal (Specialist), Evidence Based Journal, Evidence Based Medicine, Tobacco Control Journal, and Oxford University Press Journals as well as resources from the Tobacco Free Initiative Division of WHO. Keywords used were smoking and women, smoking cessation programs, and smoking and weight gain. Studies were selected that related directly to women and smoking, narrowed to studies published from 1995 to 2004, and 17 articles met this criteria. Only four studies emphasized weight gain concerns. Overall findings indicate diet or exercise interventions produce lower weight gain and better long-term smoking cessation outcomes. Programs that address smoking cessation and weight concerns in women should incorporate a combination of methods, particularly diet and exercise, along with nicotine replacement therapies and cognitive-behavioral therapy. Supported by WHO, MIRT at Penn State University, and MAOP-PREP at Virginia Tech.

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E-45 Meritorious Student Poster

PREDICTIVE MODELS OF HISPANIC OBESITY

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According to the CDC, 23.7% of the Hispanic population is obese and the proportion of Hispanic individuals defined as overweight exceeds 50%. Existing evidence indicates that obesity risk markers (e.g., BMI, dietary intake, physical activity level) in Hispanics are inversely related to socioeconomic status (SES). Adjustment for SES substantially reduces but does not eradicate ethnic health disparities. The relationship between acculturation, SES, and obesity in this population is not clear. While obesity appears to increase with successive generations of residence in the U.S.; other findings indicate that with increased acculturation, obesity levels decrease. We argue that the moderate negative linear relationship may obscure a non-linear association between acculturation and obesity. SES is generally treated as a confounding variable and is statistically controlled. Increasing acculturation may have different effects on obesity depending on the SES level of Hispanics. In this presentation, we outline a theoretical overview on the inconsistencies in the literature and propose two models which may help reconcile the inconsistent findings in the literature. First, we propose a moderator model with SES as a moderating variable that interacts with acculturation to predict obesity risk markers. Next, we propose a quadratic association model whereby the negative relationship between acculturation and obesity may appear up to a medium-high range of acculturation values (e.g., up to the 75th percentile), followed by a positive relationship at high values (e.g., above the 75th percentile). These models may lead to a greater understanding of the relationships between acculturation, socioeconomic status, and obesity.

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PHYSICAL ACTIVITY BARRIERS OF LOW-INCOME PRIMARY CARE PATIENTS WITH TYPE 2 DIABETES

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Objective: Because there is limited research on the barriers to physical activity among predominantly low-income, minority patients with type 2 diabetes, the purpose of this study was to examine barriers in this high-risk population.

Method: During scheduled primary care visits, 105 patients with type 2 diabetes completed demographic, medical, and psychosocial questionnaires, which included perceived barriers to physical activity and attitudes regarding activity. Medical charts were reviewed for HbA1c, body mass index, and blood pressure.

Results: The majority of the low-income sample was female, African American, and unemployed. Commonly endorsed barriers related to lack of time, social support, and equipment, as well as medical/physical barriers to activity. The perceived importance of exercise in controlling diabetes was negatively associated with the number of barriers endorsed, r = -.29, p < .01. Participants’ belief that exercise could prevent future diabetic complications was negatively related to barriers, r = -.17, p < .08. Discussion: Common barriers dealt with medical/physical limitations and barriers commonly endorsed by previous samples (e.g., lack of time) rather than environmental barriers potentially associated with a low-income setting. Participants’ who were more confident in the efficacy of physical activity for treating their diabetes endorsed fewer barriers. Further research would be helpful to explore this relationship between barriers and patients’ attitudes about the efficacy of activity.

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SOCIAL SUPPORT AND EATING BEHAVIOR IN PATIENTS WITH DIABETES

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Self-efficacy and social support moderate adherence to diabetes regimens (Gonder-Frederick et al., 2002). However, the nature of these relationships remains unclear, and no investigations have examined whether differing types of social support (i.e., emotional, instrumental) are associated with dietary adherence (Culos-Reed et al., 2000). This study explored how the presence and habits of others relate to the food choices of people with diabetes.

We hypothesized that self-efficacy would be negatively correlated with vulnerability to social influence and with hemoglobin A1c values. We also explored whether the importance and type of social support relate to people’s food choices.

One hundred-five participants with diabetes (ages 18-75), recruited via an internet listserver, completed measures regarding their demographic information, diabetes care, level of self-efficacy, and effects of social support on eating behavior.

Eating well was easier when participants were alone than when in the presence of others (t=4.89, p<.001). Individuals higher in self-efficacy were less influenced by the eating habits of others (r=.20, p<.05) and were in better glycemiac control (r=-.24, p<.05) than those with low self-efficacy. Participants who rated social support as important experienced greater difficulty eating healthily when in the presence of other people (r=.29, p<.01). Choosing healthy foods was easier when participants were around people who also ate healthily than around those with poor habits (t=11.61, p<.001). Furthermore, instrumental support was slightly more influential than emotional support on dietary adherence (t=2.01, p<.05).

Results indicate the importance of social (particularly instrumental) support in maintaining eating habits conducive to glycemic control, as well as the role of self-efficacy as a buffer against social influence.

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GLUCOSE METABOLISM IN CAREGIVERS: EFFECTS OF NEIGHBORHOOD CHARACTERISTICS

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Adverse neighborhood environments and caregiving for a relative with dementia are both stressors that have been associated with poor health. The present study examined the extent to which three self-report measures of neighborhood characteristics interact with caregiving status (caregiver versus control) to modify an important stress related health outcome—glucose metabolism. The sample consisted of 165 community recruited caregivers and 158 control participants who did not have caregiving responsibilities. Participants were recruited from May 2001 to June 2004. We hypothesized that negative neighborhood characteristics would magnify effects of caregiving on glucose metabolism. Regression analyses were conducted to examine the interaction of three neighborhood characteristic measures with caregiving status in predicting fasting glucose and glycosylated hemoglobin concentration, with control for age, race, gender, relation to care recipient (spouse or relative), body mass index, income, and education. Of the three neighborhood measures, the one primarily reflecting crime concerns significantly moderated the effect of caregiving on fasting glucose (p < .008) and glycosylated hemoglobin (p < .012). For participants with better neighborhood characteristics, caregivers and controls were similar with respect to measures of glucose metabolism; however, for participants with worse neighborhood characteristics, caregivers had significantly higher levels of fasting glucose and glycosylated hemoglobin, as compared to controls. Impaired glucose metabolism could contribute to poor health outcomes among caregivers who fear neighborhood crime.

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INFLUENCE AND INTERACTION BETWEEN FALSE BELIEFS ABOUT SYMPTOMS AND THE USE OF EXTERNAL CUES ABOUT BGL DISCRIMINATION IN CHILDREN WITH DIABETES TYPE I

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The objective was to analyze the possible variables that influence the discrimination of the blood glucose levels (BGL) in children and teenagers with type I diabetes, in order to obtain cues for the development of more effective training programs in such discrimination. In a sample of children with type I diabetes was studied the coordinated influence over the BGL discrimination of variables such as perception of the actual symptoms of BGL states in hypo and hyperglycemic states, the beliefs about false symptoms indicating extreme BGL levels and the use of external cues, analyzing the probable interactions between them. The children completed a questionnaire of beliefs about symptoms and a SUIC-3 scale, before the executing of each habitual glucose analysis, the greater the number of false beliefs about symptoms, the worse the BGL discrimination. This effect was modulated through a greater use of external cues. In the case of subjects that do not perceive some of the symptoms related with their BGL levels, an interaction between the use of external cues and false beliefs was observed, indicating that, in these cases, a better discrimination is produced when an high use of external cues and a lack of beliefs about symptoms appears together. Finally, the implications of these results on the design of training programs in BGL discrimination are discussed.

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E-50

EFFECTS OF HEAVY DRINKING AND TYPE OF PARTNER ON CONDOM USE BY ACTIVE DUTY, US NAVAL PERSONNEL

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Examines effects of heavy drinking and type of partner on condom use by deployed, active duty, enlisted, male, US Navy personnel.

Methods: During 2002-2003, US Navy male enlisted personnel completed anonymous survey toward end of deployment on aircraft carriers (n = 3087). Response rates (35-65%) varied by carrier. Median participant age was 22 years. Most participants (65%) were on their first deployment. Study measures included demographic characteristics (marriage experience, ethnicity), frequency of condom use with steady and casual partners in home and foreign ports, and number of alcoholic drinks consumed with sex partners. Participants consuming 5 or more drinks on average were categorized as heavy drinkers (all others categorized as not heavy). The sample is limited to the three largest ethnic subgroups (Anglo, n = 1525; Latino, n = 481; African American, n = 441). Data were submitted to a linear mixed model analysis.

Results: Marriage experience (ever, never), heavy drinking (yes, no), and type of partner (steady, home port casual, foreign port casual) had significant effects on frequency of condom use (p < .01). Two-way interactions were observed between (a) partner and marriage experience, (b) partner and ship, and (c) partner and heavy drinking (p < .01). These interactions were not qualified by significant three-way interactions (p > .06).

Conclusion: Findings illustrate psychological rather than pharmacological effects of alcohol, negative effects of marriage, and importance of type of partner to condom use in this military sample.

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E-51

KNOWING BIOLOGICAL FROM CHEMICAL WARFARE: THE EXPERIENCE OF GULF WAR VETERANS

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By understanding how soldiers differentiate between biological and chemical warfare, we can gain some insight into how lay people might do similarly in the case of a terrorist attack. A lay person’s sensible response to a chemical warfare exposure (such as going to an emergency room) could potentially harm others if exposure to biological warfare had been missed. Logistic regressions revealed that veterans specified alarms and symptoms as the way they recognized definite biological exposure (23.4%), to biological warfare (2.5%) or to both types of warfare (21.1%) Veterans most commonly determined that they had been exposed through the sounding of an alarm (35.7%), but many also used the presence of physical symptoms (23.6%). Other cues included seeing SCUD missiles, smelling/tasting the agent, seeing dead animals, and rumors. Logistic regressions revealed that veterans specified alarms and symptoms as the way they recognized definite exposure to biological warfare more often than definite exposure to an indeterminate agent (OR=3.18, p<.10, OR=5.47, p<.01, respectively). The findings demonstrate that soldiers have multiple ways of determining to what agent they have been exposed, and the degree to which the soldiers utilize these cues varies by agent of exposure. These findings have substantial implications for health communication efforts related to terrorism and disaster preparedness.

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SLEEP DISTURBANCE, STIGMA AND PAIN IN HIV+ ADULTS WHO USE COMPLEMENTARY AND ALTERNATIVE MEDICINE

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This study examined the association between sleep disturbance, stigma and pain in 40 participants (50% female) enrolled in a complementary and alternative medicine study. The majority of the sample (65%) was African American with 30% European American, 2% Latino and 3% other ethnicity. The mean age of participants was 45.5(SD=6.9) and ranged from 31 to 61 years of age. Income levels were reported to be less than $10,000 by 67.5% of the sample.

Pain was assessed with the pain scale from the MOS-HIV and sleep disturbance was determined with the Sleep Disturbance Scale from the Pittsburgh Sleep Quality Index (PSQI). Participants were asked if they had experienced stigma either as a result of the HIV status or for some other reason. Only non HIV-related stigma contributed significantly to our model.

Pain was both positively and significantly associated with both sleep disturbance (r=.48, p < .01) and stigma (r=.32, p<.05). A multiple regression analysis found that as sleep disturbance (t = 3.46, p < .001) and stigma experiences (t = 2.34, p < .025) increased, pain increased as well (Adjusted R2 = .29, (F(2,35)=8.71, p<.001). T-tests found no significant differences in gender, ethnicity, age or income for pain, sleep disturbance or stigma. This suggests that interventions that address sleep disturbances and stigma experiences in HIV+ adults may contribute to effective pain management.

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E-53

ONLINE HYSTERECTOMY SUPPORT: CHARACTERISTICS OF WEB SITE EXPERIENCES

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Health information is available to Internet users in a variety of formats. This descriptive study examines the use of an Internet information and chat Web site, hystersisters.com, which allows women to ask questions and exchange information with other women who also recently planned to or already had a hysterectomy. This study had three aims: to determine if this Web site is successful in providing information and support; to assess why particular Hystersisters were perceived to be helpful, and to describe what, if anything, women found unhelpful about this Web site. Women (n=137), aged 25-65 years (M=39.8, SD=7.54), were recruited by an ad posted on the site. This sample was reasonably comparable to a national sample of hysterectomy patients. A survey including several open-ended questions was mailed to their home. Results indicated that this site is successful in providing positive informational support (chi square = 13.46, p = .000) in comparison to esteem or emotional support. In addition, women found discussing recovery issues (chi square = 5.727, p = .017) to be most helpful. Although women found this site helpful, 39% of women indicated that they had found something on the site unhelpful. Notably, women’s responses reflected negative esteem/emotional support ( chi square = 8.395, p = .004). Only 14% of women indicated that a particular Hystersister was unhelpful and of those, the most common responses reflected that the woman was unhelpful for not being positive (32%). The Web site seems to accomplish the provision of positive informational support; however, this site is not always seen as helpful.

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LAY PERCEPTIONS OF POST-MI DEPRESSION

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The current study used vignette methodology to examine lay perceptions of post-MI depression. Vignette targets were post-MI patients varied by gender, recent stressors (high vs. low), and pure (i.e., sadness, feelings of worthlessness) vs. somatic (i.e., fatigue, loss of appetite) depressive presentation. Main effects for stressors and depressive presentation were found, indicating that the depressive symptoms were taken more seriously if they were somatic and if the target had experienced recent stressors. Interactions were found between stressors and depressive symptoms for ratings of perceived illness likelihood and necessity of physician visits, such that pure depression in the context of low stress was taken least seriously. A 3-way interaction was found for ratings of the extent to which the target’s symptoms were a natural reaction to circumstances, such that stress level was only important for male targets when symptoms were somatic in nature, and only important for pure depression in female targets. There was a 3-way interaction for ratings of the extent to which therapy would benefit the target, such that participants were most likely to recommend therapy for male targets and least likely to recommend therapy for female targets if somatic symptoms co-varied with high stress. For ratings of the importance of pharmacologic treatment, another 3-way interaction was found, suggesting that although stress level was not important when evaluating male targets, participants were less likely to recommend medication for female targets with somatic symptoms and high stress.

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LAY PERCEPTIONS OF MI SYMPTOMS

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The current study used vignette methodology to examine lay perceptions of MI symptoms. Targets varied by gender, recent life stress (high vs. low), and prior MI status. Each target experienced typical MI symptoms and participants were asked to rate the seriousness of the symptoms, their likely cause, and the appropriate course of action. Main effects for stress level were found on a number of variables, such that targets who were under high stress were more likely to be rated as suffering from some illness, needing medical attention, and being depressed. Participants rated male targets as in need of more prompt medical attention than female targets, and were marginally more likely to attribute the symptoms of female targets to the flu. Participants believed that targets who had experienced a previous MI should be more concerned or upset about their symptoms than those who did not. Stress level and prior MI status interacted to predict ratings of how concerned the target should be, such that the influence of prior MI status was limited to targets under low stress. Another interaction was found in predicting ratings of the likelihood of depression, such that male and female targets were rated as equally likely to be depressed if they had experienced a previous MI, but ratings for female targets were much higher in the absence of a previous MI.

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HEALTH BEHAVIOR OF SCHOOLCHILDREN RELATED TO THE SCHOOL TYPE IN RUSSIA

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The study assesses health-related knowledge, attitudes and behaviour in schoolchildren related to different types of schools in Russia. Survey with anonymous standardized questionnaires was conducted among 704 schoolchildren (302 boys and 402 girls aged 14-16, from comprehensive (349), vocational (258) and boarding (97) schools in four regions of Russia. Smoking was considered as hazardous habit by 90.7% of respondents; (88.1% of boys and 91.7% of girls). 24.6% considered smoking not very harmful (4.0% of boys and 0.5% of girls) and 0.6% thought smoking is not harmful at all (0.7% of boys and 0.5% of girls). In comprehensive schools 2.8% of boys and 1.9% of girls considered smoking as not harmful or not very harmful habit, while in the boarding and vocational schools these proportions were 6.3% of boys and 1.6% of girls respectively. 16.1% of respondents (26.3% of boys and 8.5% girls) reported regular smoking. 43.1% of boys and 23.5% of girls were regarded as smoking more or less constantly (p<0.001). Smoking was significantly more frequent both in boys and girls in boarding and vocational schools (34% of boys and 34% of girls), compared with comprehensive schools (24.3% of boys and 13.6% of girls; p<0.001).

Similar results were obtained concerning alcohol consumption, (38.0% boys and 25.7% girls vs. 50.3%; p<0.05 and 49.4%; p<0.001), drug use: in comprehensive schools had tried 5.6% boys, 0.9% girls, in boarding and vocational schools: 11.1% and 8.3% respectively; p<0.001.

Schoolchildren from boarding and vocational schools demonstrate lower health related knowledge and higher substance use rates compared to those from comprehensive schools, which may be important for designing school based preventive programs. 

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FITNESS, OBESITY AND STANDARDIZED TEST SCORES AMONG ETHNICALLY DIVERSE 5th, 7th, AND 9th GRADERS

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Background: School-level data have suggested a positive relationship between standardized test scores and measures of fitness. Will the relationship hold true at the individual level, taking into account ethnic and economic differences?

Results. Both physical fitness and body composition measures were found to be related to standardized math and reading scores. Students whose body composition exceeded age and sex-specific Fitnessgram standards scored lower on California standardized math, reading and language tests than students achieving desirable fitness levels. These results were attenuated after controlling for socioeconomic differences. Ethnic differences in standardized test scores (Asians & Whites > African Americans & Latinos) were consistent with ethnic differences in percent achieving recommended levels of body composition and aerobic fitness.

Conclusion. More research is needed to increase understanding of the mechanisms that may explain why physical fitness and body composition should be related to school children’s performance on standardized math, reading and language tests. 

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E-58

USING AN ANALYTICAL FRAMEWORK TO IDENTIFY POTENTIAL TARGETS AND STRATEGIES FOR ECOLOGICALLY-BASED PHYSICAL ACTIVITY INTERVENTIONS IN MIDDLE SCHOOLS

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Ecological approaches are advocated for the design and implementation of physical activity (PA) promotion programs. A framework (Richard, et al., 1996) useful for assessing the integration of an ecological approach in health promotion programming has not yet been used to develop a program based on ecological principles. The purpose of this study was to identify number and type of potential targets and intervention strategies for promoting PA in school settings based on barriers and facilitators identified by 38 students (n= 22 girls, mean age= 12.59, SD= 0.91; n= 16 boys, mean age= 12.56, SD= 1.09) in four middle schools. Eight focus groups were conducted to examine student perceptions of who/what in their school make it easy/difficult for students to be physically active. Qualitative data analysis identified meaning units from which emerged 13 sub-categories (e.g., how school PA rules and policies influence student PA). Richard et al.'s framework served to collapse sub-categories into four higher-order categories consisting of potential intervention targets. Frequency analysis of 317 meaning units revealed that PA barriers/ facilitators were associated with these targets: individual (IND), interpersonal (INT), organization (ORG), and community (COM) at a frequency of 6.6%, 30.3%, 57.4% and 5.7% respectively. Six different intervention strategies were identified with 56.2% of meaning units representing an organizational modification strategy (e.g. offering a variety of school PA programs to students). We conclude that Richard et al.'s framework is useful for translating students' perceptions of PA barriers and facilitators into potential intervention strategies for a school-based ecological PA program.

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E-59

Meritorious Student Poster

“I DON’T WANT TO GO TO SCHOOL”: PREDICTORS OF ABSENTEEISM AMONG CHILDREN OF MOTHERS WITH IRRITABLE BOWEL SYNDROME

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Children of parents with irritable bowel syndrome (IBS) are more likely to exhibit illness behavior than are children of control parents. School absenteeism is one form of illness behavior in children. Aim: Determine the influence of child demographic and psychosocial factors (age, academic self-esteem and pain catastrophizing) on absenteeism – among both children of IBS parents and children of control parents. Methods: 208 mothers with IBS (cases), with 296 children (mean 11.9 years; 48.6% male; 94.9% Caucasian), and 241 non-IBS mothers (controls) with 335 children (mean 11.8 years; 49% male; 99.7% Caucasian) completed measures of child academic self-esteem (Harter), child catastrophizing (Pain Response Inventory – PRI), and school attendance. Results: Univariate regressions indicated that academic self-esteem (Bet=.135, p=.033), age (Bet=.167, p=.006) and catastrophizing (Bet=.168, p=.008) predicted school absences among case, but not control, children. In a stepwise regression (conducted solely on case children), child catastrophizing and age predicted school absences (p<.01); academic self-esteem was not entered into the model. Conclusions: Findings offer implications for children of parents with IBS, with attention to age and maladaptive cognitions (catastrophizing) as risk factors for disability.

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AN INVESTIGATION OF GENDER, DEPRESSIVE SYMPTOMS AND ALCOHOL USE IN A SAMPLE OF AFRICAN AMERICAN COLLEGE STUDENTS ATTENDING A HISTORICALLY BLACK COLLEGE OR UNIVERSITY

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Depression and alcohol abuse are serious mental health problems that are affecting a significant number of college students today. Most of the research investigating these problems has been conducted on samples with predominantly Caucasian students. As a result, there is a dearth of research investigating these variables using African American college students as subjects. This study used the Beck Depression Inventory-II, a demographic questionnaire and the Core Alcohol and Drug Survey to assess depressive symptoms and alcohol use in a sample of African American students attending a Historically Black College or University. Results of a t-test indicated a nonsignificant gender difference for depression. A 2X2 Analysis of Variance revealed that males scored significantly higher than females on binge drinking and weekly, monthly, and yearly alcohol consumption. Correlational analysis illustrated significantly positive relations for depression and binge drinking, weekly, and yearly alcohol consumption for female participants. These findings are consistent with others research that indicates drinking among college students has been associated with emotional problems. Social learning theory was used to explain gender differences in alcohol use. Environment contextual issues, cultural factors, and methodological issues are mentioned as important issues that should be addressed in future research.

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TARGETING HIGH SCHOOL TOBACCO-USE POLICY

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Some social and environmental factors are known to influence teen smoking, e.g. peer and parent tobacco use, tobacco availability, and favorable portrayals in media. Less clear is the relationship between school tobacco-use policies, teacher smoking and student smoking. The purpose of this study was to examine tobacco-use history of teachers and students in schools with a no-use vs restricted-use policies. Data collection was self-report. Most teachers were white, female, non-smoking, >35 yrs old, and teaching experience >10 yrs. More white teachers smoked than black, 13% vs 7%; more white females smoked than white males, 15% vs 10%, both p=0.03. No smoking prevalence differences existed in no-use vs restricted-use schools or in proportion of teachers who smoked on campus. Smoking teachers were less likely to agree with a no-use policy. Teachers in restricted-use schools were less likely to express concern over students seeing teachers smoke and were less supportive of a no-use policy. More than 4,700 9th graders assessed at baseline were 61% white, 33% black, with 30-day smoking prevalence at 25%. At baseline and over the next two intervention years, no difference in student smoking was found in no-use vs restricted-use schools, but confounding variables made these data difficult to interpret. This study showed that a no-use tobacco policy had no effect on teacher smoking behavior. Other factors e.g. enforcement need to be considered. School tobacco use policy is a strategy that needs continued study.

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IDENTIFYING BARRIERS THAT HINDER PARENTAL INVOLVEMENT IN SCHOOL-BASED HEALTH PROMOTION PROGRAMS

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Environmental influences (i.e. school, classroom and home) are being linked to the increasing rates of type 2 diabetes (T2DM), obesity and physical inactivity seen in children. Parental involvement (PI) may make an important contribution to the success of school-based health promotion programs. The Bienestar Health Program (BHP), a coordinated school-based diabetes prevention program, aims to prevent or delay the onset of T2DM in children by improving their diets and physical activity in four intervention areas: P.E/health curriculum, cafeteria, after-school, and parent programs. BHP staff conducted a series of focus group to identify additional barriers to PI not accounted for and to modify their parent arm accordingly. Parents with zero levels of PI were randomly selected for recruitment by school nurses and liaisons. Forty-seven out of 223 previously non-participating parents consented. Four focus groups were conducted over a two week period. Participants’ discussions were recorded and transcribed. Participants identified four categories of barriers or disincentives to their involvement in BHP: 1) perceived low value of attendance, 2) high cost to value ratio, 3) competing family demands, and 4) school-home cultural mismatch. External and internal influences shaping PI were identified. Modifications to BHP: 1) perceived low value of attendance, 2) high cost to value ratio, 3) competing family demands, and 4) school-home cultural mismatch. External and internal influences shaping PI were identified. Modifications to BHP were implemented to increase parental involvement.

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DETERMINANTS OF CONDOM USE INTENTIONS AND BEHAVIOR AMONG TURKISH UNIVERSITY STUDENTS: A TEST OF THEORY OF PLANNED BEHAVIOR

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Evidence indicates that unsafe sexual behavior is widespread among young adults in Turkey, but little is known about determinants of, and therefore potential points of intervention for this risky behavior. Theory of Planned Behavior (TPB) was used to examine the determinants of condom use intentions and behavior among a group of 89 sexually active Turkish university students (44 men, 45 women; mean age=22). To test TPB hypothesis that intentions are a function of attitudes, subjective norms, and self-efficacy, I assessed attitudes toward condoms, subjective norms about condom use (SN), condom use self-efficacy (CUSE), intentions to talk about and use condom with regular partners. Hierarchical regression analysis was performed. First step: knowledge and gender, second step: perceived benefits, barriers, and risk, and last step included TPB variables. Last step of the model partially confirmed TPB attitudes ($\beta$=.38, p<.005) and SN ($\beta$=.43, p<.001) significantly predicted intentions but CUSE did not. Additionally, knowledge was positively associated with behavioral intentions ($\beta$=.26, p<.005). No other variable reached significance. Final model explained 40% of the variance in behavioral intentions. Second multiple regression analysis tested TPB hypothesis that intentions and CUSE would predict condom use frequency. TPB was partially confirmed: intentions significantly related to behavior ($\beta$=.696, p<.001), while CUSE approached significance ($\beta$=.14, p=.089). The model explained 51% of the variance in behavior. This is the first study testing TPB in a Turkish student population and findings provide partial support for TPB. Although findings require replication, they suggest that attitudes, SN, and knowledge, but not CUSE, are potential targets for promoting safer sex behavior.

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TRIGGERS OF HEAVIER AND LIGHTER CIGARETTE SMOKING IN COLLEGE STUDENTS

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This preliminary study examined the relationship between cigarette smoking and several environmental and psychological cues to smoke in college students who were lighter (2-8 cigarettes per day) and heavier (>10 cigarettes per day) daily smokers. Nineteen lighter and 16 heavier smokers monitored their smoking behavior and certain smoking cues, and reported this information daily to an interactive voice response (IVR) system over a 13-day period. With that sample size, a difference of one standard deviation between the two groups can be detected with the Wilcoxon rank-sum test with a power of 72%. As hypothesized, results indicated the lighter smokers consumed a significantly greater proportion of their cigarettes when drinking alcohol and during the evening hours compared to heavier smokers. Contrary to our hypothesis, lighter smokers, compared to heavier smokers, did not smoke a greater proportion of their cigarettes in the presence of another person smoking; however, analyses indicated that lighter smokers smoked more during segments of the day when they were around other persons smoking compared to segments when they were not. No differences were found between groups on smoking in the presence of negative affect or caffeine; however, heavier smokers, compared to lighter smokers, smoked a significantly greater proportion of their cigarettes when experiencing low energy positive affect (e.g., calm). If a replication of this study produces similar results, there could be implications for public policy, particularly the regulation of smoking in venues where alcohol is served.

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ASSESSING THE IMPACT OF COLLEGE ON HEALTH ISSUES

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College is a time of excess freedom and pursuit of identity. It is plausible to believe that young adults experiment during this period with the adoption and cessation of a variety of health behaviors. Peers may serve as reinforcers of the newly adopted lifestyles. As college progresses, students are aware of negative and positive effects of healthy behaviors, but believe in the “magic cap and gown;” they assert that after receiving their diploma they will adopt a healthier lifestyle. Phase one is to determine if entrance into college alters the students’ healthy lifestyle. Over 500 students were tracked over time to assess the impact of college on over 20 health behaviors (e.g. binge-drinking, smoking, stress-management, regular sleep, eating disorders, fruit and vegetable intake). The sample is comprised of 56.5% females, 90.3% single with an average age of 18.3 from a Midwestern university. Individuals were staged according to their readiness to change their health behaviors. First-year students were compared to upperclassmen and shown to be different in the use of spiritual expression, $\chi^2(2)=2.05, p=.04$, spiritual expression stage, $\chi^2(4)=10.71, p=.03$, binge-drinking, $\chi^2(5)=12.16, p=.03$, sexual activity, $\chi^2(1)=9.90, p=.002$, but not in terms of smoking, eating disorders, or dental hygiene. Additional analyses assessed the amount of change (across time) in the first-year students’ readiness to change for the aforementioned health behaviors. Significant changes were noted (p<.01).

The current study supports the assertion that the collegiate environment provides a venue for altering an individual’s health lifestyle. Additional research needs to determine if after exiting the college environment students return to their previous healthier lifestyle or if the impact of college is long-lasting.

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PHYSICAL ACTIVITY AND WELL-BEING DURING TRANSITION TO UNIVERSITY

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Transition to college or university is a life stressor for most students. Consistent with the broader study of stress and illness, physical and psychological health problems are prevalent during this transition. Physical activity plays a moderating protective role in the life event stress—illness relationship; however, physical activity levels generally decline during late adolescence. The purpose of this study was to examine vigorous physical activity relative to psychological well-being and illness during first-year university. Active students were expected to report more positive psychological well-being, fewer upper respiratory infectious illnesses (URIs), and seek medical attention for illness less often than insufficiently active students. Data were obtained from 175 Canadian undergraduates (n = 115 females; M age = 17.79 ± 5.4) at the completion of their first year of study. Vigorous activity was assessed using an adapted form of the 2003 BRFSS survey. The GHQ-28 was used to measure psychological well-being. Incidents of URI and doctor visits for illness were obtained by self-report. Sixty-one percent of students engaged in sufficient (≥3 sessions per week) vigorous activity. Insufficiently active students scored lower on psychological well-being, F (1,169) = 5.34, p = 0.02, and were twice as likely to have consulted a physician regarding illness (Exp(B) = 2.19, 95% CI = 1.162 – 4.132) compared to sufficiently active students. Being insufficiently active during transition to university thus appears to have negative short-term implications for student health and well-being. Findings are discussed relative to health promotion efforts such as Healthy Campus 2010. Researchers are encouraged to investigate transition to university and how it may affect determinants of health.

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PERCEPTUAL INACCURACIES AS A RISK FOR TOBACCO USE AMONG STUDENTS ATTENDING HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

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There is increasing interests in understanding and then reducing risk of smoking among college students. The current study evaluated the risk of tobacco use as a function of perceptual inaccuracies about peer smoking rates among students attending a Historically Black College and University (HBCU) in the Southeastern US. Two-thousand, two-hundred, seventy-seven African American subjects, aged 20.3 ± 3.9 (range 18-53), completed the CORE Alcohol and Drug survey and a brief demographic questionnaire. Subjects who inaccurately estimated the rates of tobacco use on their campuses were eighty seven percent more likely (OR=.15, 95% CI .10, .25) to have smoked in the past year and seventy three percent more likely (OR=.18, 95% CI .11, .29) to have smoked in the past thirty days. Using an age- and gender-adjusted model, subjects who inaccurately estimated the rates of tobacco use were eighty six percent more likely (OR=.16, 95% CI .09 , .26) to have smoked in the past year and seventy percent more likely (OR=.18, 95% CI .11 , .31) to have smoked in the past thirty days. We interpret these data to suggest that there are educational opportunities to correct misinformation about norms for smoking on college campuses and to continue to reduce the risk of smoking-related mortalities and mortality. More research is needed to develop education-based interventions towards the reduction of the incidence of smoking among diverse and minority populations.

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ATTITUDES TOWARD CHRONIC PHYSICAL ILLNESS

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Social support can be beneficial to patients and to their caregivers in adjusting to the stress of disease (Hilton, 1996). However, because of the fear and stigma associated with chronic diseases, patients along with their caregivers may experience problems in obtaining adequate support (Sapp et al., 2003; Pomeroy, Rubin, & Walker, 1995). Using illness vignettes in an experimental paradigm, this study assessed attitudes toward chronic illnesses, contrasting HIV and cancer. Extending earlier research on stigma an illness (Hayes et al., 2002), the study also assessed attitudes toward caregivers of individuals with these chronic illnesses. Ninety-nine university students (mean age = 22 years) were surveyed to evaluate attitudes toward individuals with chronic disease and their caregivers. Participants completed measures assessing attitudes towards chronic disease (the Impression Rating Scale; Katz et al., 1987) and socio-demographic characteristics. The experimental paradigm allowed the researchers to independently manipulate the illness and patient/caregiver factors. ANOVA results showed that attitudes were more negative toward a patient with chronic disease than toward either a caregiver or a healthy individual. Attitudes were more negative toward a caregiver than toward a non-caregiver on competence, depression, and morbidity, with no significant difference on dependence. A caregiver was seen as more morally worthy than a non-caregiver. HIV patients were rated less morally worthy and less dependent than cancer patients, with no difference in ratings between caregivers of HIV and cancer patients. Findings demonstrated that stigma associated with chronic diseases is a significant problem and that stigma extends to caregivers as well as to patients.

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A SHORT YOGA INTERVENTION MAY INCREASE MINDFULNESS AND DECREASE RUMINATION: A PILOT STUDY

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Mindfulness, defined as sustained attention to mental states and processes is a hypothesized index of health. Ruminative following provocation is related to psychological distress and negative health outcomes. The objective of the current study was to determine the effects of a yoga on mindfulness, and rumination following the provocation of anger. Participants were 24 students and staff members of an academic institution in Bronx, NY; (mean age 39 years, 95.5% female, 62.5% Caucasian, 4.2% African American, 20.8% Hispanic, 12.5% Asian/Pacific Islander). Participants completed a self-report measure of Mindfulness (Freiburg Mindfulness Inventory (FMI) pre and post an 8-week Hatha Yoga Intervention where yoga instruction was provided once a week. Participants also engaged in a laboratory anger-recall interview pre and post the yoga intervention where rumination following the anger-recall task was assessed via the modified Anger Rumination Scale (ARS). The yoga class was comprised of a 10-minute breathing component, a 40-minute posture (asana) sequence, and 10 minutes of relaxation. Results demonstrate a significant increase in overall mindfulness scores (p<.05) and a significant decrease in rumination scores (p<.05), post the yoga intervention. Results indicate that yoga may be beneficial in increasing mindfulness and reducing rumination following anger provocation; both outcomes are associated with better health.

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Use of complementary and alternative medicine (CAM) is increasing in popularity, with estimated rates for the general population varying between 8% and 42% (NL, Simile, & Hardy, 2002). Such widespread use necessitates that health professionals understand who uses CAM. This study explores demographic and psychosocial predictors of CAM use among a Southern rural population. Base-line data from The Rural Physician Cancer Prevention Project (CA 71024), a five-year dietary study, were analyzed. CAM use was defined in the study as taking vitamins, natural or herbal remedies, or alternative medicine. We predicted demographic variables (gender, ethnicity, marital status, age, education), time since last visit to a physician, trust in physician, and importance of physician’s advice will influence CAM use. Participants (N = 397) were mostly female (64%) and Caucasian (58%), with 37% African American. Sixty percent were married, 42% middle-aged (30-50 years old), and 15% had not received a high school diploma. Almost all participants had seen a physician in the last year (93%), most trusted their physician ‘very much’ (66%), and 79% indicated that their physician’s advice was ‘very’ important. About half the participants reported currently using CAM (52%). Logistic regression was conducted to determine factors that influence CAM use (yes/no). Results suggest that CAM use is significantly influenced by age (OR=1.020, CI=1.003-1.037), education (OR=1.278, CI=1.051-1.554), and trust in physician (OR=0.719, CI=0.518-0.997). Findings contribute to the on-going attempt to understand patient characteristics and beliefs of CAM users, thus helping physicians better understand patients and their medical needs.

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GUILDED IMAGERY FOR SMOKING CESSATION: A PILOT RANDOMIZED CONTROLLED TRIAL


Background: Smokers who want to quit smoking often ask about alternative therapies, yet little is known about the efficacy of these methods for smoking cessation. We conducted a pilot study of guided imagery for adults seeking to quit smoking.

Methods: We randomized 27 smokers from the Boston area who were not using pharmacotherapy to guided imagery (which combined 6 weekly instructional group sessions with a CD-based home program) or to a waiting list control group. At enrollment, all participants received physician advice to quit and set a quit date. Outcome (7-day point prevalence tobacco abstinence verified by saliva cotinine < 10 ng/ml) was assessed at 6 weeks (end of treatment) and 12 weeks. Subjects lost to follow-up were counted as smokers. Analyses were performed according to the intention to treat principle.

Results: Groups did not differ on baseline factors; mean age was 46 years, mean years smoked 25, mean Fagerstrom score 4.4, and mean salivary cotinine level 383 ng/ml. One-third of subjects were male. At end of treatment, verified 7-day abstinence was achieved by 38% (5/13) of intervention subjects vs 7% (1/14) of controls. (p=0.08, Fisher’s exact test). Results were identical at the 12-week follow-up. Conclusions: A 6-week guided imagery program for smoking cessation was feasible and may improve smoking cessation rates. Larger, long-term studies are needed to establish the efficacy of guided imagery, which may offer an alternative non-pharmacologic treatment for smoking cessation.

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REACTIONS TO REPRODUCTIVE GENETIC TESTING: A SYSTEMATIC REVIEW OF FACTORS AFFECTING ABORTION DECISION-MAKING
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Purpose: Present and critically assess findings from a systematic review of the extant literature regarding intra-personal factors affecting decision-making following an abnormal reproductive genetic testing result.

Background & Theoretical Framework: Most value-expectancy theories emphasize understanding individuals' expectations and values when health decisions and behaviors are considered. New genetic technologies in the form of prenatal screening tests will most likely increase the number of clients facing an abortion decision. Key to high quality genetic services is providers' better understanding of the cognitive and affective elements influencing abortion-related choices.

Methods: Authors employed the Matrix Method for conducting systematic reviews. The terms genetic testing, reproductive testing, abortion, and decision were used to search six databases (from their inception till the year 2004). Sixteen studies met the inclusion and exclusion criteria. Each study also was assessed for its methodological quality.

Results: Severity or type of disease (found in 43.8% of studies), and testing results (25.0%) were the two major factors influencing individuals' decision to have an abortion. Additional factors included: religious affiliation, prior exposure to disabled children, ethnicity, education, extraparental role, income, attitudes of genetic counselors, and the information provided by health care providers. Only 1 of the 16 studies in the sample achieved a "good" methodological quality rating.

Conclusion: While more high-quality studies regarding abortion decision-making are needed, these findings suggest that health educators, genetic counselors and health care providers can play a role in assisting clients with their decision-making. This role can be optimized when providers are sensitive to their clients' beliefs and values, and understand which factors are amenable to educational interventions.

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DEPRESSION AND TRAUMA EXPOSURE AMONG PREGNANT SMOKERS
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Introduction: Depression and negative affect resulting from exposure to a traumatic event are correlated with smoking during pregnancy. The present study describes the prevalence of major depression and exposure to a traumatic event in a sample of low-income, ethnic-minority, urban-living pregnant women.

Method: Participants were recruited as part of a pilot study designed to investigate the efficacy of nicotine gum for smoking cessation among pregnant smokers. Thirty-four patients in a prenatal clinic were recruited. The sample was 55% Hispanic. The mood and anxiety sections of the Structured Clinical Interview for DSM-IV (SCID) were administered at baseline.

Results: Nineteen percent of participants met diagnostic criteria for current major depressive episode of which half (50%) screened positively for moderate major depression and half (50%) screened positively for severe major depression. Twenty-two percent met diagnostic criteria for at least one past major depressive episode. Eighty-seven percent of participants reported having been exposed to a traumatic event in the past. Of those, 17% of participants screened positively for current PTSD and traumas included assault, witnessing a death, murder or assault, fire, and accident.

Discussion: Low-income pregnant smokers are at risk for major depressive disorder and more likely to have a trauma history. Pregnant smokers with depression or PTSD may require behavioral interventions that simultaneously incorporate strategies to treat the nicotine addiction as well as the concomitant psychiatric disorder. If these findings are replicated, screening and treatment for current depression and PTSD might become part of the standard of care when treating pregnant smokers.

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SPONTANEOUS SMOKING CESSION DURING PREGNANCY AMONG ETHNIC MINORITY WOMEN: A PILOT STUDY
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Background: A majority of women who quit smoking while pregnant do so without professional intervention. This preliminary study sought to identify the factors associated with spontaneous quitting among pregnant women in a low-income, ethnically diverse population. Methods: The sample consisted of low-income Hispanic women. Thirty-three of 141 women (23%) quit smoking without intervention. This sample of "spontaneous quitters" was compared across a number of demographic, psychological, and smoking variables to women who were unable to quit on their own. Results: Women who spontaneously quit smoking differed from the women who continued to smoke on a number of variables. These variables were entered into a regression analysis, which revealed that higher self-efficacy, smoking fewer cigarettes per day, and younger age accounted for 25% of the variance in spontaneous cessation. The majority (76%) of spontaneous quitters remained abstinent at the end of pregnancy, but six of the quitters relapsed, but 36% were smoke-free.

Discussion: The results of this study indicate that low-income ethnic minority women who stop smoking without intervention are more likely to have higher levels of confidence in their ability to quit, be lighter smokers, and be younger in age than those who cannot quit on their own. The relapse rates in this sample is similar to those found for Caucasian and higher-income populations. These results extend research with pregnant smokers to a new population and may have implications for healthcare providers and policy makers.

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AN EXPERIMENTAL EVALUATION OF THE SOCIAL COGNITIVE PERSONALITY MECHANISMS THAT REGULATE SELF-EFFICACY TO RESIST SMOKING IN HIGH RISK SITUATIONS
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Smokers' appraisals of their self-efficacy to resist or to quit smoking have been consistently predictive of smoking cessation outcomes. Despite this predictive potency, however, clinical interventions for smoking cessation and relapse prevention generally have not capitalized on this finding. One reason for the relative absence of interventions that target self-efficacy appraisals specifically in smokers may be that the psychological mechanisms that regulate self-efficacy appraisals have not been identified. Such information could assist in designing treatments that target those psychological mechanisms to improve self-efficacy appraisals and thus, enhance overall cessation rates.

This study evaluated experimentally whether two abstinence related self-schemas developed and validated in our prior work, the abstinence ideal possible self and the abstinence ought possible self, regulated self-efficacy to resist smoking when smokers were exposed to provocative smoking cues. A sample of 55 regular smokers participated in this 3 (cognitive priming: control self-schema, abstainer ideal possible self, abstainer ought possible self) x 2 (cue type: deprivation only, deprivation + active smoking cue) within subjects design. Cognitively priming both of these abstinence selves significantly increased self-efficacy to resist smoking compared to the control prime under both cue conditions (all p's < .05). Increasing levels of self-efficacy to resist smoking were robustly correlated with lower levels of craving across priming conditions (r's > -49, p's < .0001). These results have theoretical and clinical implications for understanding the psychological mechanisms that causally regulate self-efficacy to resist smoking under conditions of high risk.

Supported by RO1 CA081291

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GENDER DIFFERENCES IN SMOKING RELAPSE
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The purposes of this secondary analysis of a nicotine gum study were to examine whether pre-cessation and post-quit-day-1 (D1) biopsychosocial (withdrawal, stress, mood, social-support, partner-smoking), and behavioral (self-efficacy, motivation) factors associated with smoking-relapse (SR) differed among men and women, and to determine whether reasons for SR differed among men and women. Data were collected from 608 participants (mean-age 41 years, 51% women, 81% Caucasian, and 29% married). Descriptive-statistics, chi-square, and time-to-event analyses were performed. Controlling for gum-dose, pre-cessation factors associated with time-to-relapse (TTR) among men were higher social-stress and partner-smoking, whereas women with higher financial-stress and higher positive-affect self-efficacy were at greater risk for SR. In a combined model, only the effect of positive-affect self-efficacy on TTR appeared to differ in men and women (p=0.072). Controlling for gum-dose, D1 factors associated with TTR in men were a higher negative-affect self-efficacy, whereas women with lower motivation, lower negative-affect, and higher habitual-craving self-efficacy were at greater risk of SR. In a combined model, the effect of negative-affect and habitual-craving self-efficacy on TTR appeared to differ in men and women (p=0.002, p<0.0001). Differences in reasons for SR were noted: 24% of women identified negative affect as the reason for SR as compared to 14% of men (p=0.002, p<0.0001). Results suggest that gender differences may exist in SR. Further studies are needed to test whether interventions incorporating combination factors of medications and behavioral treatments are more effective then single treatments and whether there is a differential gender effect.

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THE RELATIONSHIP BETWEEN COPING STYLE, DECISIONAL BALANCE, AND SMOKING CESSATION
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There is limited research examining how coping style influences the ability to engage in smoking cessation treatment. The primary purpose of this study was to examine how avoidant and non-avoidant coping styles, in the context of other factors known to be important in the smoking cessation process, were related to the ability to 1) shift in decisional balance, i.e. emphasize the cons over the pros of smoking, and 2) quit smoking.

Participants were 418 adults who participated in a smoking cessation program based on the transtheoretical model. They completed a measure of coping style that assessed the degree to which they monitor (desire information about threat) or blunt (distract from information about threat). It was hypothesized that individuals who utilized a greater degree of monitoring coping would shift more easily in decisional balance and be more successful in smoking cessation than individuals employing a more blunting coping style.

Multiple regression analyses revealed that neither change in decisional balance nor coping style was related to smoking outcome. Nonetheless, an exploratory logistic regression analysis indicated that blunting coping style was related to completion of the program (t = 3.81, p < .05); on an 8-point scale, non-completers reported more blunting (mean = 2.31) than completers (m = 1.98). Other known predictors of smoking cessation outcomes (i.e., self-efficacy, decisional balance) were not significant predictors of program completion. The results suggest that assessment of coping style prior to group treatment may have important implications for increasing patient adherence to smoking cessation interventions.

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DEPRESSIVE SYMPTOMS, SELF-EFFICACY, AND CIGARETTE SMOKING
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Tobacco smoking remains the number one cause of death and disease in the United States. Previous studies have demonstrated that depressive symptoms are associated with cigarette smoking. This study hypothesized that: a) depressive symptoms would be related to cigarette smoking among college students, and b) differences in perceived smoking self-efficacy would mediate this relationship.

Over two-hundred college students at a public university participated at baseline. Measures at baseline and across a 1-year follow-up indexed depressive symptoms, smoking self-efficacy, and average daily smoking.

As predicted, at baseline depressive symptoms (median split) were significantly associated with cigarette smoking in the full sample (F(1, 202) = 4.86, p < .05) and among current smokers (F(1, 39) = 6.72, p < .05). Moreover, for the 41 participants for whom data were available for multiple time points a significant relationship between depressive symptoms and smoking was found (F = 4.38, p < .05) across assessments. Smokers high in depressive symptoms at baseline smoked over two packs of cigarettes per week compared to less than half a pack for those with low depressive symptoms.

An integrative structural equation model demonstrated that smoking self-efficacy fully mediated the link between depressive symptoms and cigarette smoking (overall c2 (1, N = 39) = 3.53, p < .05) with all hypothesized parameters significant at the .05 level. Depressive symptoms predicted lower smoking self-efficacy, which in turn predicted more cigarette smoking.

Overall, the present study demonstrated a significant relationship between depressive symptoms and cigarette smoking and elucidated a key mechanism in this relationship. Findings are relevant to smoking cessation interventions targeting individuals with depressive symptomatology.

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**BELIEFS ABOUT COLLEGE-STUDENT SMOKERS**
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The purpose of this study was to examine possible differences in smokers’ and non-smokers’ beliefs about college student smokers. Participants included 165 undergraduate college students (65 non-smokers and 100 smokers). Participants completed a questionnaire either individually or in small groups that assessed various features of smoking behavior and smoker self-concept. Smokers answered the questions based on their own beliefs and behaviors, whereas non-smokers answered the questions based on their beliefs about the “typical” college-student smoker. The non-smokers also completed a prototype scale consisting of five negative descriptions (self-centered, moody, dependent, irrational, weak) and six positive descriptions (considerate, friendly, smart, attractive, honest, reliable) of smokers. Analyses revealed dramatic differences between the smoking and the non-smoking groups. Smokers, for example, saw themselves as much less addicted to smoking compared to the non-smoking observers, reporting that it would be easier for them to give up their first cigarette of the day and to refrain from smoking in places where it is forbidden (p < .001). Non-smokers significantly underestimated how much smoking was a part of a smoker’s self-concept (p < .001), and they significantly underestimated how motivated smokers were to quit in the next 30 days (p = .013). Non-smokers’ prototypes were consistently negative; indeed, 86% of the non-smokers held a negative view of smokers. Non-smokers view college-student smokers as much more committed to and addicted to smoking than college-student smokers see themselves. This mismatch could lead to the stigmatization of young adult smokers.

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**DIFFERENCES IN SOCIAL, PSYCHOLOGICAL, AND COGNITIVE FACTORS BETWEEN SMOKING AND NON-SMOKING COLLEGE STUDENTS**
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Smoking among college students is rising more quickly than among other populations. This highlights the need to understand unique characteristics of this age group that might influence smoking behavior. This descriptive study evaluated differences between smoking and non-smoking students on several important social, psychological, and cognitive dimensions. Two- hundred and forty-two undergraduate students (72% female; 85% Caucasian) completed a survey assessing smoking behavior, media, peer and parental influences on smoking behavior, supportive and unsupportive interactions, depressive symptoms and stress, as well as cognitive factors such as body image and smoking expectancies. Fifty-one percent of the sample had tried smoking. Eighteen percent were current smokers. Univariate ANOVA’s indicated that smoking students reported having more friends who smoke (F = 70.7, p = .001), increased perceptions of hostility and impatience from others (F = 7.2, p = .008), greater stress and depressive symptoms (PSS-10 F = 3.8, p = .05, CES-D F = 4.0, p = .048), and poorer body satisfaction (F = 5.6, p = .019) than non-smoking students. No differences were observed between smokers and non-smokers on media encouragement of smoking, parental smoking behavior, social network size, or perceptions of support (p > .05). The majority of students, regardless of smoking status, expected smoking to be harmful to their health and believed that smoking helps people to lose weight. Forty-one percent of the students who smoked reported wanting to quit smoking. These results point to important social, psychological, and cognitive differences between smokers and non-smokers that are frequently overlooked in smoking cessation interventions.

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**F-14**

**INTEREST IN GENETIC TESTING FOR LUNG CANCER SUSCEPTIBILITY AMONG BLACK COLLEGE STUDENTS “AT RISK” OF BECOMING CIGARETTE SMOKERS**
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We explored factors that may influence receptivity to genetic testing for lung cancer susceptibility among freshman attending a historically black college who were “at risk” of becoming smokers. Students (N=94) completed a survey about their susceptibility to smoking, perceived lung cancer risk, extent to which genetics influence this risk, interest in genetic testing, and test outcome expectation. Interest in testing was moderate (Mean = 3; scale of 1-7). Interest in testing was lower among those who felt lung cancer was more influenced by genetics (r = -.22, p<.05), and those expected being at higher risk if tested (r = -.26, p<.05). Overall, 34% and 66% thought if tested their result would indicate higher or lower lung cancer risk, respectively. In multivariate analyses, test outcome expectation was the only significant predictor of interest in testing. Those who believed the test would show them to be at lower risk were 30% more likely to be interested in testing than those who thought the test would show them to be at higher risk (OR=1.3, 95% CI 1.12-1.79). Results suggest that young healthy adults who are most interested in genetic testing may hold optimistic expectations about their results that could motivate them to discount or otherwise defensively process information about the testing, particularly if their result shows high risk. This should be considered in genetic testing intervention studies to prevent adoption of cigarette smoking among susceptible smokers.

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**F-15**

**PERCEIVED SPOUSAL CRITICISM PREDICTS INTAKE OF DIETARY FIBER IN MEN DIAGNOSED WITH CORONARY HEART DISEASE**
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Several recent studies have identified increased intake of dietary fiber as a protective factor for coronary heart disease (CHD). Quality of marriage is postulated to affect CHD outcomes through adherence to treatment and lifestyle changes such as dietary modification. The aim of the current study was to investigate if marital satisfaction and perceived spousal criticism predicted intake of dietary fiber. The current investigation consisted of baseline measures from a larger study examining an intervention for cardiac risk reduction in couples. Participants were 40 men who were diagnosed with CHD, including 29 Caucasians, 6 African Americans, 1 Asian and 1 Hispanic, with a mean age of 60 years. The dependent measure was dietary fiber intake, as measured by 24-hour dietary recall interviews. The predictors included self-report measures of marital satisfaction and perceived criticism. As anticipated men who perceived more criticism from spouses were also less satisfied with their marriage (p<.001). More importantly, regression analyses suggested that perceived criticism alone significantly predicted the intake of dietary fiber, i.e. expectation of more criticism was related to less intake of dietary fiber (p<.05). Marital satisfaction did not predict intake of dietary fiber (p>.05). Results suggest that the negative dimension of a relationship, specifically criticism rather than the global measure of marital satisfaction, is associated with the intake of dietary fiber. Therefore, targeting modification of partner criticism in psychosocial interventions may yield beneficial effects in adherence to dietary changes of CHD patients.

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Higher Sensation Seeking Predicts Smoking Relapse

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Studies have shown that sensation seeking is predictive of the onset and maintenance of smoking behavior. However, few studies have specifically linked sensation seeking to smoking cessation outcomes. The current study examined if level of sensation seeking at pre-quit baseline predicted point prevalence relapse rates at six months post quit day. Participants were 58 nicotine dependent adults (30M, 28F) who enrolled in a smoking cessation treatment trial and met inclusion criteria for no current or past major medical or psychiatric conditions. Participants smoked an average of 20 (±7) cigarettes daily for 23 (±13) years. The treatment included four weeks of nicotine patch and six individual behavioral counseling sessions. Results showed that the Zuckerman Total Sensation Seeking (SS) scores were significantly higher in men than women (p<.005). After controlling for gender, higher SS was associated with higher relapse rates at 6-months post quit day (Wald chi-square (1, N = 58) =5.68, p<.05). When the four SS subscales were entered simultaneously into a regression, only the Disinhibition subscale remained a significant predictor of relapse (Wald chi-square (1, N = 58) =4.04, p<.05). These findings suggest that of the subcomponents of impulsivity, only disinhibition is uniquely related to poor prognosis in smoking cessation. Further research on the impact of such personality traits to smoking treatment outcome may help facilitate tailored treatment approaches and ultimately improve quit rates.

Supported by NIH/NIAAA (#K08-AA00276, F31AA15017-01) and #M01-RR00855. Patches were supplied by Glaxo Smith Kline Consumer Healthcare, Pittsburgh, PA.

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Detrimental Effects of Cognitive Dissonance on Smokers’ Retention of Smoking Risk Information

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Most smokers know that smoking is unhealthy, yet they often avoid reflecting on the cognitive dissonance between their knowledge and their actions. We explored whether increasing the salience of this dissonance might influence retention of newly presented information about the risks of smoking. On the one hand, inducing dissonance should make smokers more attentive to risk information, so as to avoid seeming even more hypocritical. On the other hand, dissonance has been shown to impair performance on difficult cognitive tasks, perhaps because of the associated physiological arousal. We hypothesized that dissonance would facilitate performance on a memory assessment when the questions were relatively easy, yet impair performance when the questions were more difficult. Eighty male and female smokers were randomly assigned to a dissonance condition or no-dissonance condition, and then read a brochure highlighting various health effects of smoking. Dissonance was invoked by having participants write an essay about why young adults should not begin smoking, after which they reported their own smoking behavior. Finally, participants answered a series of easy and difficult multiple-choice questions measuring retention of material in the brochure. We also measured anxiety as a potential mediator. Dissonant smokers did indeed perform worse on difficult questions, and no better on the easier questions. Although anxiety was higher in the dissonance condition, it did not mediate the effect of dissonance on performance. These findings imply that cognitive dissonance interventions may fail if the goal is to transmit fairly complex risk information.

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Effects of Trait Anxiety, Gender, and Nicotine Replacement on Weight Gain in Smokers After Quitting

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The potential moderating effects of trait anxiety on weight gain after quitting smoking has received little attention in the empirical literature. Thus, changes in body weight from before quitting to 38 days after quitting smoking were assessed in 140 individuals who maintained chemically verified abstinence for the required 38 days. Half of these quitters were randomly assigned to daily active nicotine patches and the other half were assigned to daily placebo patches. The NEO-PI anxiety scale was used as our trait anxiety measure. There was a significant Patch Type x Time x Gender x Anxiety Group interaction (p < .05). Only low-anxiety women on the placebo patch gained significant weight during the 38 days after quitting. Thus, low-anxiety women on the nicotine patch did not gain significant weight after quitting, and neither did high-anxiety women in either placebo or nicotine conditions. Men, independent of condition, did not gain weight during the 38 days after quitting. These results are consistent with the view that there may be gender differences in the effects of nicotine replacement therapy on weight gain and that these differences may be moderated by trait anxiety.

SUPPORT: This project was supported by the National Institute on Drug Abuse, Grant# R1DA12289.

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Effects of Trait Anxiety, Gender, and Nicotine Replacement on Weight Gain in Smokers After Quitting
EXPLORING PHYSICAL ACTIVITY MAINTENANCE IN MIDDLE AGED AND OLDER WOMEN: A QUALITATIVE STUDY

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Literature on physical activity determinants among middle and older aged women focuses mainly on short term participation. However, previous studies tend to overlook factors affecting long term participation in physical activity. Using an ecological framework and self-determination theory, this study examined how past physical activity experiences relate to current physical activity patterns in women who have maintained a physically active lifestyle. This study also explores the role of four factors (motivation, social support, physical environment, and barriers) on the physical activity behaviours of active middle aged and older women. Ten semi-structured interviews, 5 with middle aged women (39 to 45 years of age) and 5 with older women (60 to 68 years) were conducted. This paper will present findings on the role of self-schema, outcome expectancy, social support, and barriers in maintaining physical activity.

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SELF-SCHEMA, OUTCOME EXPECTANCY AND REASONS FOR EXERCISE IN MIDLIFE/OLDER WOMEN

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Midlife/older women are less likely to regularly exercise at levels sufficient to modify behaviorally-linked disease risk. Factors motivating women to exercise have not been clearly defined. Self-identified “Intermittent” or “Regular” exerciser self-schemata may affect perceptions regarding benefits of exercise. We examined reasons for exercise in sample of midlife/older women self-identified as “Regular” versus “Intermittent” exercisers (N=81; Mage=51.19; range=31-83). Sample participants were predominantly white (83%), married/partnered (50.6%), and well educated (73% ≥ H.S.). Over three-fourths (77%) of the women perceived their health to be “Good” or “Excellent.” Half (50.6%) were overweight/obese (MBMI=27.37). There were no differences in exercise behaviors between Intermittent versus Regular exercisers by BMI, age or longest period of regular exercise participation. Participants rated how hard they “typically work when exercising” on the Borg RPE scale. “Regular Exercisers” perceived themselves to work at higher levels of intensity than the “Intermittent Exercisers” (M=14.16 versus 11.89; p=0.01). Whereas, “Intermittent Exercisers” had higher levels of Exercise Outcome Expectancy (r=.07, p=.23), 96% perceived they “will continue to exercise” on the Stress Management (p=.0001) and Enjoyment and/or Pleasure (p=.006).

In this sample of apparently healthy women, there were no health-related barriers to regular exercise participation. It may be that those women who exercise only on an intermittent basis do not do so consistently enough or at a level of intensity necessary for them to garner the benefits of stress reduction or activity enjoyment. Women with “Intermittent Exerciser” self-schema may perceive exercise benefits differently such that they are more focused on outcome than enjoyment and relaxation processes inherent to the activity itself.

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F-22
THE IMPACT OF AGE ON FATIGUE AND SLEEP COMPLAINTS IN BREASTCANCER SURVIVORS

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Fatigue is known to be one of the most frequent, debilitating, and persistent symptoms in breast cancer patients and survivors. Sleep complaints frequently accompany fatigue, but sleep is not as commonly investigated as an outcome variable in this population. This study examined the effect of age on fatigue and sleep complaints in 1488 women treated for breast cancer. The WHEL study is a randomized trial of the effect of a dietary intervention in breast cancer survivors. Self-report measures of fatigue and sleep complaints were administered at baseline, 12, 24 or 36, 48, and 72 months. Because the intervention involves behavioral counseling, which may impact the outcomes of interest, these analyses included only the comparison group. Although previous reports indicate increased sleep quality with age, age was not related to sleep complaints in this sample, cross-sectionally or over time. Fatigue, however, was related to age in an unexpected manner. At baseline, older women reported less fatigue (p<.05). Age was also a significant predictor of changes in reported fatigue over time, such that complaints of fatigue decreased as age increased (p<.05). The absence of relationship between age and sleep complaints in this sample echoes recent findings calling the impact of aging on sleep disturbance into question, particularly in women and cancer patients. The unexpected relationship between age and fatigue may be related to the use of self-report measures and changing expectations over time, or to factors specific to breast cancer.

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FUNCTION IN ASSISTED LIVING: ACTIVITY AND EFFICACY INFLUENCES

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Older adults face declines in physical function as a result of inactivity. Low levels of physical activity have been reported for individuals residing in assisted living. This environment may uniquely influence residents’ self-efficacy for physical activity participation and related activities. The purpose of this study was to determine the relationships among self-efficacy, physical activity participation (Physical Activity Scale for the Elderly), balance performance (Berg balance scale), and preferred walking speed among older adults (N=118, M age = 81.6 +/- 5.3 years) residing in assisted living communities. Correlational analyses revealed (all reported p values < .05) that residents who were more confident in their ability to walk for specific durations were more active (r = .23), had better balance (r = .37) and faster preferred walking speeds (r = .52). Residents with higher levels of self-efficacy for walking were also more confident about walking in challenging situations (r = .48) and performing activities requiring balance (r = .41). In addition, residents who were more active had better balance (r = .25), faster preferred walking speeds (r = .34), and were more confident in situations requiring balance (r = .28) and walking skill (r = .28). These data suggest that interrelationships exist between self-efficacy, physical activity, balance, and walking speed among older adults residing in assisted living communities. Based on these data, assisted living environments and interventions that increase self-efficacy for physical activity should be developed to encourage activity participation and a more active lifestyle.

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PHYSICAL ACTIVITY MATTERS: IMPLICATIONS FOR SELF-ESTEEM IN AN ASSISTED LIVING ENVIRONMENT

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Self-esteem is an important aspect of life satisfaction and psychological well-being. Physical activity, fitness, and self-efficacy play integral roles in increasing self-esteem among middle-aged adults (McAuley et al., 2000). These relationships have not been examined among older adults in assisted living; a subgroup in need of physical activity intervention (Mihalko & Wickley, 2003). Therefore, the purpose of this study was to investigate the relationships among self-esteem; at the global, domain-specific (physical self-worth; PSW) and subdomain levels (attractive body, AB; physical condition, PC; and physical strength, PS), self-efficacy, physical function, and physical activity, in older adults (N=130; M age=81.6±5.3) residing in assisted living. Correlational analyses revealed that PSW was related (p<.01) to global esteem (r=.35), AB (r=.64), PC (r=.75), and PS (r=.60). Additionally, residents with greater efficacy for performing 1) walking, 2) balance, and 3) strength activities reported higher (p<.05) levels of AB (r=.32, .33, & .23), PC (r=.45, .41, & .22), and PS (r=.34, .33, & .35) and had better (p<.05) physical function (Berg, r=.37, .60, & .25; Timed-Up And Go, r=.53, .53, & .24; gait speed, r=.52, .60, & .31; and grip strength, r=.20, .25, & .61). Lastly, active residents had significantly (p<.05) higher levels of the expanded Exercise and Self-Esteem Model (Sonstroem & Morgan, 1989) in this population. Physical activity interventions designed to increase physical function and self-efficacy among older adults in assisted living may ultimately have a positive impact on the self-esteem of these residents.

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WEIGHT MANAGEMENT EFFORTS OF RURAL MEN AND WOMEN

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Rural areas of the country are understudied in the context of obesity. This report compares strategies that rural men and women employ when trying to lose weight, using measures that are more specific than those applied in previous studies. Such an assessment highlights behavioral deficits and strengths and will contribute to the design of more effective and efficient interventions. Data are from a cross-sectional, in-person survey conducted in rural Iowa with 184 adults (56 men, 128 women) who reported they were currently trying to lose weight. Participants were part of a larger study (n=407) intended to identify community health issues. Measures capture seldom assessed strategies for dealing with the social environment in addition to those related to food choice and preparation, exercise planning, social support, self-efficacy, outcome expectations, dietary intake and exercise level. Women reported greater use of nearly all strategies measured compared to men (p<.05). Men reported more social support for diet (p<.0001), while women reported more social support for exercise (p=.002). Results for self-efficacy and outcome expectations were mixed. No gender differences were found for fat intake, fruit and vegetable servings, or exercise level. Men and women may enter weight management programs with different knowledge and skill levels, including those related to dealing with the social environment.

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CORRELATES OF SELF-EFFICACY AND SOCIAL SUPPORT FOR PHYSICAL ACTIVITY AMONG AFRICAN AMERICAN CHURCH MEMBERS

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Self-efficacy (SE) and social support (SS) are consistent correlates of physical activity (PA) participation in most populations. Examining influences on SE and SS can lead to further understanding of PA behavior. PURPOSE: To examine correlates and predictors of SE and SS for PA among African American church members. METHODS: The Health-e-AME initiative is a faith-based PA program in AME churches in SC. Individuals from 21 randomly selected churches participated in a telephone evaluation of the program (N=571). A 5-item measure (Marcus et al., 1992) was used to examine SE. SS for PA was assessed with a 5-item measure (based on Sallis et al., 1987). Sociodemographic, psychosocial, environmental and PA participation variables were examined. Bivariate correlations were performed, and linear regression was developed using backward selection. RESULTS: SE was positively correlated with income, employment, male gender, perceived neighborhood safety and walkability, PA enjoyment, SS, support from church members for PA, and meeting PA recommendations. The regression model predicted 20% of the variance in SE for PA. SS was positively associated with body mass index, PA enjoyment, SE, seeing active neighbors, perceived neighborhood safety and walkability, availability of church exercise programs, support from church members for PA, and participation in church activities. The regression model predicted 18.5% of the variance in SS for PA. CONCLUSION: The results indicate a number of mutable variables associated with SE and SS, providing a basis for designing interventions to target SE, SS and PA behavior.

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MEDICATION EFFECT OF SELF-EFFICACY IN EXERCISE INVOLVEMENT AMONG KOREAN IMMIGRANT WOMEN
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1School of Nursing, The University of Texas, Austin, TX.  2Physical activity has beneficial effects on the general functioning of young and middle-aged women. A special form of physical activity is exercise, and a primary factor in determining whether a woman becomes involved in exercise is self-efficacy. Purpose: The purpose of this study is to examine the mediation effect of exercise self-efficacy in the relationship between perceived exercise benefits and exercise among Korean immigrant women. Method: A nonprobability sample of 98 participants was recruited from Korean American communities in Texas, California, and New York. Participants were recruited both off line and on line. To test the mediation effect of exercise self-efficacy in the relationship between perceived exercise benefits and exercise, two hierarchical regressions were run. Findings: The mean age of the participants was 47.3 years old, and their average education was 15.1 years. The length of residency in the U.S. ranged from 11 months to 450 months, with an average of 185.8 months. The most frequently reported forms of exercise were swimming, golf, and walking. The amount of exercise was not significantly correlated with length of residency in the U.S. Participation in exercise was significantly predicted by perceived benefits, perceived barriers, and self-efficacy (p<.000, R²=.467). Self-efficacy had a mediation effect on the relationship between perceived benefits and exercise. Discussion: Even though the women perceived more benefits from exercise, those perceptions did not strongly relate with participation in exercise unless the women also had high self-efficacy. This study may help future studies define the direct and indirect relationships that predict whether Korean immigrant women will participate in exercise.

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SOCIAL COGNITIVE DETERMINANTS OF PHYSICAL ACTIVITY AMONG CHURCHGOERS
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1Psychology, Virginia Tech, Blacksburg, VA; and 2Centers for Behavioral and Preventive Medicine, Brown Medical, Providence, RI.  A social cognitive (SCT) model of physical activity was tested using SEM of data from 999 churchgoers from 14 Southwestern Virginia churches: 92% attended church 1-2 times/week, 66% were female, 21% African American, age range=18-92 (M=52.73, SD=14.56); 9% reported incomes ≤ $20,000 (median = $55K), 20% reported ≤ 12 years of education (M=14.88, SD=2.37), 65% lived with no children, 74% were overweight or obese, and 38% engaged in no planned activity to improve or maintain physical outcome-expectations (~58 on 100-pt scale). Participants indicated neutral to low confidence to overcome barriers to physical activity among their families (~3 on a 5-pt scale). Mean self-efficacy scores indicated positive, but not complete, confidence in their ability to increase physical activity in their daily lives (~73 on 100-pt scale). Confidence to overcome barriers to physical activity was more neutral (~58 on 100-pt scale). Participants indicated neutral to low time-management outcome-expectations (7-13 on a 25-pt scale) and positive, not strong, physical outcome-expectations (17-19 on a 25-pt scale). Overall, participants seldom (rated 2 on 5-pt scale) or occasionally (3 on 5-pt scale) implemented physical activity self-regulatory strategies in the previous three months. The SCT model provided a good fit to the data (RMSEA < .05) and explained 44% of the variance in churchgoers’ physical activity. While participants’ age, race, social support, self-efficacy, and self-regulation made important contributions to their physical activity levels, outcome expectations did not—a configuration of influences consistent with SCT.

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THE INFLUENCE OF STRUCTURED PHYSICAL ACTIVITY ON SELF-EFFICACY, SELF-DETERMINATION AND FEELING STATES
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1Human Kinetics, University of Ottawa, Ottawa, ON, Canada; 2Psychology, University of Ottawa, Ottawa, ON, Canada; and 3Clinical Epidemiology Unit, Ottawa Health Research Institute, Ottawa, ON, Canada.  Presently in North America, the prevalence of diabetes exceeds 19.2 million citizens (CDA, 2002; CDC, 2003). Physical activity has been demonstrated to be a useful tool to improve insulin sensitivity and psychological health of adults with type II diabetes (ACSM, 1998; Hardman & Stensel, 2003). A randomized exercise trial is presently being conducted to investigate the influence of structured physical activity (3 time/week for 6 months) on individuals with type II diabetes (Sigal, Kenny, Fortier et al.). The purpose of this sub-study is to investigate the influence of this protocol on psychological variables over time, specifically motivation, self-efficacy, and feeling states. Sedentary adults (n=128, 61% male, M age = 55) diagnosed with type II diabetes were randomized to one of 4 groups: aerobic (n=30), resistance (n=34), combined (n=35) or control (n=29). Participants completed validated questionnaires measuring these variables at 3 time points: baseline, 3 and 6 months. A 4 [group] x 3 [time] MANOVA was conducted to determine changes overtime in these variables. Results indicated a main effect for Time [F(14, 484) = 4.55, p < .001]. Univariate analyses demonstrated a significant increase from baseline to 3 months, then a slight increase at 6 months for the majority of these variables. A decrease in negative feeling states was shown from baseline to 6 months. No group or interaction was found. These results confirm the positive effects of physical activity in individuals with diabetes. More research testing physical activity maintenance interventions are needed.

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COMBINED UTILITY OF THE TRANSTHEORETICAL/STAGE OF CHANGE AND RELAPSE PREVENTION MODELS IN UNDERSTANDING THE PROCESS OF ONGOING EXERCISE
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1Psychological and Brain Sciences, University of Louisville, Louisville, KY; and 2SOPP, Spalding University, Louisville, KY.  Exercise adoption and adherence have been widely examined in terms of readiness for change and maintenance using the Transtheoretical/Stage of Change (SOC) Model. The Relapse Prevention Model has also been applied to exercise maintenance over time, focusing on missed activity sessions, drop-out and cognitive response to missed exercise. Despite the independent utility of both models in understanding the ongoing process of physical activity patterns, their combined utility has not yet been examined. We assessed constructs underlying the Relapse Prevention Model and how they varied according to participants’ Exercise SOC. Participants (N=264) were adults (58% women; Mage=35.42, SD=17.81) the majority of whom were Caucasian (79.9%), had some college education, (71.2%) and were overweight (MBM=25.66; SD=5.24). Current activity level was assessed with the Godin Leisure-Time Questionnaire (Mscore=35.10; SD=28.22). Participants reported exercise SOC as: precontemplation-4.9%, contemplation-14.0%, Action-28.4%, Maintenance-52.7%. Relapse Prevention Model constructs were assessed with exercise-specific self-report measures of reasons for relapse, outcome expectancies, self-efficacy, demoralization, and Internality/stability causality. ANOVA comparisons by SOC yielded significant differences in activity level (p<.0001) and in Relapse Prevention Model constructs: personal (p<.0001) and situational (p<.0001) reasons for relapse, outcome expectancies (p<.0001), internal attribution causality (p<.0001) and stability (p<.0001), perceived personal control (p=0.005) and exercise self-efficacy (p<.0001). Findings indicate that key components of the Relapse Prevention Model differ by exercise SOC. Future study of processes of exercise maintenance may be greatly informed by the integration of both theoretical models.

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EXERCISE COGNITIONS DIFFER BY NUMBER OF RELAPSE OCCURRENCES

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Despite clear health benefits of exercise, most people who initiate exercise programs have difficulty maintaining them. We assessed exercise patterns, self-reported relapse history and exercise-related perceptions in a community sample. Participants were 94 women and 55 men (M age=33.46, SD=16.97) who were predominantly Caucasian (79.2%), normal-to-overweight (MMBMI=25.85) and 81.1% rated their health as good/excellent. Participants completed self-report measures of Exercise-related Demoralization, Outcome Expectancies, Attributions and Self-efficacy. Current activity level was assessed by the Godin Leisure-Time Questionnaire (Mscore=33.71; SD=29.23). Self-reported number of relapses from exercise (drop-out following exercise program adoption) during previous 5 years had an average of 2.85 relapses. Participants reporting greater than 3 relapses (36%) had more negative exercise-related cognitions when compared to those with 1-2 relapses. ANOVA Comparisons (Relapse History X Gender) yielded main effects for relapse status on exercise outcome expectancies (p=.026), subjective exercise competency (p=.029) and internal attribution stability (p=.05). Exercise relapse history was not related to current exercise, reasons for relapse or exercise self-efficacy. Results corroborate previous findings in longitudinal occurrence of relapse. Multiple dropouts, specifically 3 or more, may result in shifts in cognitions related to the process of ongoing exercise. Such shifts may play an important role in long-term exercise behavior. Cognitive change following drop-out is consistent with key components of the Relapse Prevention Model. Future studies of exercise maintenance may benefit from examination of the critical points at which missed exercise sessions and exercise drop-out result in cognitive shifts as they pertain to exercise maintenance.

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INVESTIGATING MEDIATORS OF PHYSICAL ACTIVITY BEHAVIOR CHANGE

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Understanding the mechanisms through which non face-to-face channels for interventions influence physical activity is critical for improving public health. We randomized 239 healthy, sedentary adults (mean age=47.5; 82% women) to receive one of the following 12 month interventions: 1) telephone-based, individualized motivationally-tailored feedback; 2) print-based, individualized motivationally-tailored feedback; or 3) minimal contact wait-list control. Assessments were conducted at baseline, 6, and 12 months. The primary outcome variable was weekly minutes spent in moderate and vigorous physical activity, measured by the Physical Activity Recall. Significant effects were found for both intervention arms at 6 months. Potential mediators of physical activity, based on Social Cognitive Theory and the Transtheoretical Model, were examined (e.g., self-efficacy, decisional balance, behavioral and cognitive processes of change) using the Baron and Kenny framework. The print and telephone groups were each contrasted with the control group control. The telephone and print groups were each significantly more likely to report increases on self-efficacy (p<.0001; p<.001), behavioral processes (p<.0001; p<.0001); cognitive processes (p<.001; p<.001); and decisional balance (p<.01; p<.05) from baseline to six months relative to the control group. For the 6-month outcomes, the four steps necessary for mediation outlined by Baron and Kenny were satisfied for the each of the mediating variables in determining physical activity, which is consistent with the literature. Data will be presented on 12-month mediator findings. Implications for future studies, including the importance of tailoring interventions based on these mediators, will be addressed.

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VICARIOUS SELF-EFFICACY THROUGH MODELING AND ITS EFFECTS ON EXERCISE SELF-EFFICACY

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Vicarious experience and modeling can increase self-efficacy. The present study examined this effect of modeling on exercise self-efficacy in 221 adults aged 30-90, who completed a modified Barriers to Self-Efficacy Scale (McAuley, 1992), Body Esteem Scale (Franzi & Shields, 1984), and demographic and exercise behaviors questionnaires after reading either a modeling or control passage. Participants in the modeling condition had greater self-efficacy than those in the control. Women who were satisfied with their physical condition and concerned about their weight had greater self-efficacy. Males who were satisfied with their upper body, as well as their overall physical condition, had greater self-efficacy. As participants progressed through the Transtheoretical Model of Health (Prochaska, 1994), their self-efficacy steadily increased.

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RELATIONSHIP BETWEEN PHYSICAL ACTIVITY AND DIETARY BEHAVIORS AMONG WOMEN IN A RANDOMIZED PHYSICAL ACTIVITY TRIAL

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Although physical activity and healthy dietary behaviors are important components of disease prevention, there is mixed information about the relationship between these two health behaviors. The purpose of this study was to determine whether baseline levels of physical activity were related to participants' fruit, vegetable, and fat intake. Sedentary women (n=280; mean age=47.1; 94.6% Caucasian) enrolled in a randomized physical activity trial completed baseline assessments including different measurements of physical activity, dietary behaviors, and demographic information. Results indicated that daily servings of fruits and vegetables were positively correlated with weekly minutes of total activity (Physical Activity Recall, r=.22, p<.001; BRFSS, r=.14, p<.03) as well as energy expenditure (Paffenbarger Physical Activity Questionnaire; r=.20, p<.001). Participants in the preparation stage of change for physical activity reported significantly more servings of fruits and vegetables compared with those in the pre-contemplation or contemplation stages, (r=7.26; r=.25, p<.03). Dietary fat intake was unrelated to any physical activity measures. Results suggest that participants' baseline levels of physical activity are positively related to their fruit and vegetable consumption. Therefore, interventions targeting one health behavior could influence the other behavior, and longitudinal study may be helpful in examining this possibility. Further research is also needed to examine why physical activity may be related to some dietary behaviors but not others.

Supported by RWJF #044224.

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PSYCHOLOGICAL AND PHYSICAL HEALTH CORRELATES OF LEISURE TIME PHYSICAL ACTIVITY IN A WORKSITE FITNESS PROGRAM EVALUATION

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THE EFFECTS OF A TIME PERSPECTIVE INTERVENTION ON INTENTIONS TO ENGAGE IN PHYSICAL ACTIVITY

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Past research has suggested that time perspective is associated with health behavior. Specifically, those who possess a long-term time perspective are less likely to engage in health-damaging behaviors, and are more likely to engage in health protective behaviors (e.g., Hall and Fong, 2003; Zimbardo and Boyd, 1999). Most of the research in this area has been correlational, however, and the association between time perspective and motivation to perform health protective behaviors has not been studied extensively.

The present study examines the motivational impact of a brief time perspective intervention for inducing motivation to engage in physical activity among young adults. The sample consisted of young adults who had recently signed up for a fitness class in the first week of the new year (N = 81). Participants were randomly assigned to one of three intervention groups: time perspective intervention, goal setting control intervention, and no treatment condition. Intentions were measured at pre-intervention, post-intervention, and 6 month follow-up. Those in the time perspective intervention showed significantly larger increases in intentions from pre- to post-intervention compared to both other groups (p < .01). These same differences remained at six month follow-up, but were smaller in magnitude, and did not attain statistical significance.

Together these findings suggest that the time perspective intervention was an initially powerful motivator for physical activity performance among young adults, and may be an important ingredient for interventions designed to promote health protective behaviors.

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AN INVESTIGATION OF NEURO-COGNITIVE INFLUENCES ON HEALTH BEHAVIOR AND THE DEVELOPMENT OF CHRONIC ILLNESS

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This paper presents evidence for the association between individual differences in frontal lobe function and the development of chronic illness in older adults. A community sample (N = 216) of adults from ages 20 to 100 years were administered a battery of neuropsychological tests as part of a study on normal aging, and completed self-report questionnaires regarding their health practices and self-reported presence versus absence of diagnosed chronic illness. All participants were right-handed, English-speaking, and met predetermined criteria regarding visual and auditory acuity (i.e., hearing and vision were either normal or corrected-to-normal with hearing aids and/or glasses). Participants were excluded if they reported neurological, psychiatric, or developmental conditions that could interfere significantly with higher brain functions, or the use of medications known to have significant psychotropic effects.

Based on Temporal Contingency Theory (TCT; Hall and Fong, 2004), it was hypothesized that poor performance on neuropsychological tests that tap frontal lobe function (as an index of self-regulatory capacity) would be positively associated with poor health behaviors and incidence of chronic illnesses, the latter being largely viewed as eventual consequences of these same poor health habits aggregated over long periods of time. Our findings confirmed our hypotheses: scores on frontal lobe tasks were negatively associated with health damaging behaviors and presence vs. absence of chronic illness, and were positively associated with health protective behaviors. Implications of these findings for understanding health behavior trajectories over the lifespan are discussed.

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THE PREDICTIVE POWER OF A BEHAVIOR-SPECIFIC MEASURE OF TIME PERSPECTIVE IN THE DOMAIN OF EXERCISE

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Past research has shown weak to moderate correlations between time perspective (i.e., the tendency to habitually focus on the here-and-now versus the future) and health behavior. Typically, time perspective has been conceptualized as a trait-like dispositional variable, measured free of behavioral context (i.e., “People would describe me as someone who plans for the future”). A tradition of research on social-cognitive determinants of health behavior has strongly suggested that belief- and value-like constructs are, in fact, quite behavior-specific. As a result domain-general measures of personality traits (i.e., conscientiousness) do not compete well with behavior-specific measures when explaining variance in specific health behaviors, like exercise.

This research examines the predictive power of an exercise-specific measure of time perspective (the Time Perspective Questionnaire – Exercise version; TPQ-E) compared with measures of constructs derived from prominent social-cognitive theories of health behavior (Self-Efficacy Theory, SET; Theory of Reasoned Action, TRA). In two studies, participants completed domain-general and behavior specific measures of time perspective, measures of physical activity, and measures of TRA/SET-derived social-cognitive variables at two time points. Analyses revealed that scores on the TPQ-E yield a significant increment in predictive power over the domain-general measures of time perspective, and suggest that behavior-specific temporal variables compete favorably with other behavior-specific social-cognitive variables in predicting exercise behavior.

Findings of these studies argue for domain-specific conceptualizations of time perspective, and for continued theorizing regarding a conceptual framework for the time perspective construct in the domain of health behavior.

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A META-ANALYSIS OF THE PROCESSES OF CHANGE ACROSS 20 BEHAVIORS: TESTING THEORY AND INFORMING INTERVENTIONS
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To produce optimally tailored interventions, theory that guides interventions needs to be comprehensively tested and empirical data that drives interventions needs to be systematically generated. Although the Transtheoretical Model has served as the framework for many health interventions, the foundational aspect of the model, the Processes of Change (POC), has not been thoroughly studied. This study provides new information for testing theory and informing interventions by examining magnitudes of effect for POC in relation to adjacent stage transitions. Fifty-one datasets across 20 health behaviors, nearly 25,000 participants, and 9 countries were used to generate and synthesize over 2000 effect sizes (ESs). Twenty-one distinct POC were identified. Since 11 were infrequently used, a total of 10 POC were included in this study. ESs were calculated using random effects models. These ES are reported for each POC with each of the 4 stage-transitions (precontemplation-contemplation, contemplation-preparation, preparation-action, action-maintenance) listed respectively, for Experiential POC: Consciousness Raising (d=.57, .23, .05, .08), Dramatic Relief (d=.51, .18, -.04, .03), Environmental Reevaluation (d=.43, .22, .02, -.05), Self-Reevaluation (d=.71, .29, -.01, .01), Social Libera-tion (d=.27, .13, -.08, .07); and for Behavioral POC: Counter-Conditioning (d=.33, .43, .14), Helping Relationships (d=.31, .13, .17, .02), Reinforcement Management (d=.47, .29, .21, .06), Self-Liberation (d=.62, .41, .26, .07), Stimulus Control (d=.38, .35, .21, .15). These results support the theoretical presumption that Experiential POC are most salient in the early stages, but indicate that the Behavioral POC are important in both the early and later stages. In general, use of effect sizes to assess the magnitude of stage transitions can help bridge the knowledge gap between theoretical prescriptions and intervention applications to create more effective and effective health promotion and disease prevention interventions.
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EFFECTS OF REDUCED DIETARY FAT INTAKE ON MOOD
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Recent evidence suggests that decreased dietary fat intake may have adverse effects on mood. The Reversal of Early Atherosclerotic Changes by Diet (REACH) study was a randomized clinical trial that investigated the effects of lowered dietary fat intake compared to a no-intervention control on atherosclerotic disease progression. Participants in the dietary intervention condition (N= 249; Mean Age = 56 years) were instructed to decrease total fat to ≤ 20% and saturated fat to 4% of daily caloric intake. The association of dietary fat intake and depression at baseline, 6, 12, 18, and 24 months was examined using regression analyses. Analyses revealed that reduced dietary fat intake at baseline (p<.042), 12 (p<.047) and 18 (p<.009) months predicted higher levels of depression at 24 months. Higher levels of depression at months 6 (p<.022) and 18 (p<.001) were predicted by dietary fat intake at concurrent timepoints. Stress has been linked to both changes in fat consumption and depression. Stress and negative affect for tempting situations were examined as possible mediators for these significant relationships between dietary fat and mood. Post hoc regression analyses revealed that the impact of daily stressors (WSI-I) acted as mediator for a majority of the significant relationships between fat intake and mood. Results suggest that individuals who eat a low fat diet may experience higher levels of depression. However, this relationship may be functionally mediated by the influence of minor daily stressors.
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PSYCHOSOCIAL AND ENVIRONMENTAL CORRELATES OF ADOLESCENT SEDENTARY BEHAVIORS
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Children spend an estimated 75% of the day inactive. There is evidence that reducing time spent in sedentary behaviors can be an effective weight loss strategy for youth independent of changes in physical activity. However, there has been little research on correlates of sedentary behaviors. The present study examined theory-derived psychological and environmental factors associated with adolescent sedentary behaviors. 878 adolescents (age range 11-15, mean age =12.7, 53.6% girls, 39.9% non-white) were recruited from primary care clinics for an intervention study. Bivariate and multivariate analyses were stratified by sex to assess correlates of a composite measure of sedentary behaviors (TV viewing, computer video games, sitting listening to music, and talking on the phone). For boys, age, ethnicity, BMI, cons of change, and self-efficacy were associated with sedentary behaviors (p's < .05, R² = .22). For girls, age, family support, TV/Video rules, and hills in neighborhood along with computer video games, sitting listening to music, and talking on the phone). These results highlight the need for further examination of possible correlates of sedentary behavior and establishing which correlates are mechanisms of behavior change that can then be incorporated into intervention programs.
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MOOD, FOOD, AND WEIGHT: THE IMPACT OF SOCIO-DEMOGRAPHIC FACTORS
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Anxiety and depression can affect dietary intake and weight change. The direction of weight and intake change can vary and consideration of socio-demographic factors may help explain these relationships. The present study examined whether gender and age moderate the relationships between depression/anxiety and dietary intake/weight change. The relationships between depression (CES-D), anxiety (SCL-90), dietary intake (caloric), and weight change (percent gain or loss over past four months) were examined in 508 adults through multiple regression. For people under age 50, anxiety was related to lower dietary intake, and depression to greater dietary intake and weight gain. For people over age 50, depression was associated with lower dietary intake and weight loss, and anxiety with greater dietary intake. In follow-up analyses, based on the demonstrated opposite effects of anxiety and depression on dietary intake within age groups, it was expected that anxiety and depression would moderate the effect of each other. The interaction between anxiety and depression was not significant suggesting that each variable’s influence on dietary intake is independent of the other’s level. Gender did not moderate the relationships between anxiety, depression, dietary intake, and weight change. The lack of gender interaction could be attributable to curvilinear relationships between anxiety, depression, and dietary intake, as well as gender differences in dieting. Results suggest that age may affect dietary coping responses to depression (e.g. typical vs. atypical) and anxiety (e.g. arousal vs. inhibition).
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PREDICTORS OF FAT INTAKE BEHAVIOR IN OBESE WIC MOTHERS
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Purpose: To determine whether predictors of fat intake behavior were the same for African American and White obese WIC mothers according to constructs of the PRECEDE-PROCEED model. Design: Proportional stratified convenience sampling. Subjects: non-pregnant African American (n = 200) and white obese (n = 201) women. Settings: The Special Supplemental Nutrition Program for Women, Infants and Children in 6 counties in southern Wisconsin. Measures: The independent variables were predisposing, enabling, and reinforcing factors. Predisposing factors included beliefs in diet and health, beliefs in diet and body shape, and eating habits. Enabling factors were cost of food, availability of time to prepare food, and accessibility to purchase food. Reinforcing factors were weight control intentions, sensory appeal, and mood. The dependent variable was fat intake behavior. Structural equation modeling was performed. Results: When controlling for covariates, factors affecting fat intake behavior were the same between the African American and White groups. While predisposing factors did not influence fat intake behavior, reinforcing and enabling factors were positively associated with such behavior. Conclusions: Interventions to modify low-income obese women’s fat intake behavior may benefit by emphasizing enabling (cost of food, availability of time to prepare food, accessibility to purchase food) and reinforcing factors (weight control intentions, sensory appeal, mood).
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EFFECTS OF EMOTIONAL SELF-MONITORING ON WEIGHT LOSS SELF-EFFICACY
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Studies indicate that weight loss self-efficacy is important for long-term weight loss among individuals in behavioral weight management programs. Emotional self-monitoring may contribute to weight loss self-efficacy and, thus, to weight loss. This study evaluated the influence of emotional self-monitoring on weight loss self-efficacy in a sample of 25 overweight and obese adults (age=43±9.83) enrolled in a behavioral weight management program. Participants were randomly assigned to either the usual care control condition, or an emotional self-monitoring intervention (11 weeks of daily self-reporting of intensity of 6 psychological states). Participants completed measures of weight loss self-efficacy (Eating Self-Efficacy Scale, Exercise Self-Efficacy Scale) at baseline and after 12 weeks. In addition, body mass index and fitness level (12 minute walk distance) were evaluated at each time point. Data were analyzed with repeated measures ANOVA, with time (baseline vs. 12 weeks) as a within subjects variable and group (emotional self-monitoring vs. usual care) as a between subjects variable. Results indicated a time by group interaction for both eating self-efficacy (p=.05) and 12 minute walk distance (p=.01). Eating self-efficacy and walk distance were increased significantly among the self-monitoring participants, but not among the usual care group. In addition, there was a time main effect for BMI (p=.001), reflecting that all participants achieved weight loss, regardless of condition. Although emotional self-monitoring did not result in greater weight loss than usual care, self-monitoring was associated with improved confidence in controlling eating habits and increased fitness gains, both of which may be associated with long term weight loss success.
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THE IMPACT OF SELF-EFFICACY ON BEHAVIOR CHANGE AND WEIGHT CHANGE AMONG OVERWEIGHT PARTICIPANTS IN A WEIGHT LOSS TRIAL
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Despite considerable clinical interest, attempts to link self-efficacy beliefs with successful weight control have had mixed success. In particular, definitive data on prospective associations between self-efficacy and weight loss are sparse. This study examined self-efficacy, weight control behaviors, and weight loss in a weight loss trial (N=346, 87% female). Cross-sectional and prospective analyses were conducted to specify the relation between self-efficacy, weight control behavior, and weight change during and after the treatment program. Eating and exercise self-efficacy were strongly associated cross-sectionally with corresponding weight loss behaviors and with weight. Self-efficacy beliefs prospectively predicted weight control behavior and weight change during active treatment, but not during follow-up. Medialional models indicate that people’s weight control behaviors mediate the impact of self-efficacy on weight change.
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PSYCHOSOCIAL PREDICTORS OF WEIGHT LOSS IN THE PREMIER TRIAL
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PREMIER was a multisite, randomized clinical trial that tested the effects on blood pressure (BP) of two lifestyle interventions (which included weight loss) relative to advice only. Participants (n=810) were 25 years and older with above optimal BP (Mean age = 50 years, Mean BMI = 33 kg/m²). Self-efficacy and social support for eating and exercise, quality of life, perceived stress, and perceived body image were examined as predictors of weight change. Repeated measures multiple regressions were used to determine whether (1) baseline psychosocial measures could predict weight change at 6, 12, and 18 months, and (2) 6 month psychosocial measures could predict 12 and 18 month weight change. Greater weight loss was associated with higher baseline scores of perceived stress (p<0.008), physical quality of life (p<0.005), friends’ social support for exercise habits (p=0.044), and confidence for healthy eating (p<0.009). Greater weight loss occurred among individuals who reported less baseline family social support for healthy eating (p=0.02) and less dissatisfaction with perceived body image (p<0.001). Six-month predictors revealed similar associations. Findings suggest that weight loss appears more likely in individuals who view themselves as physically healthy, have higher self-efficacy for healthy eating, and are relatively satisfied with their body image.
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COGNITIVE ADAPTATION THEORY'S IMPLICATION ON DIABETIC ADHERENCE

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Diabetic non-adherence, particularly in African-American populations, is a problem of epidemic proportions. Although research exists on psychological variables related to non-adherence, most literature focuses on deficits in psychological constructs rather than excesses. The study’s purpose was to ascertain whether optimism, mastery over illness, and self-esteem predict low adherence levels to diabetic regimen. This study recruited 80 African-American subjects, ages 18-72, at Earl K. Long Medical Center in Baton Rouge, LA. The subjects were diagnosed with Type 2 Diabetes for a period of 3 months to 3 years. The subjects completed the Cognitive Adaptation Theory Index (Helgeson, 2003), which measures excessive optimism, mastery, and self-esteem. Participants’ Hba1c was located simultaneously on their charts.

Confirmatory factor analysis isolated six factors: state mastery, trait mastery, state self-esteem, trait self-esteem, state optimism, and trait optimism all loading on to one factor, Cognitive Adaptation, with loadings ranging from .4-.7. Correlations conducted showed that state and trait self-esteem and state and trait optimism were correlated (p < .05) but state and trait mastery were not (p > .05). Multiple regression analysis run on the data indicated that high levels of state and trait optimism, master and self-esteem were not related to non-adherence (p > .05).

These data suggest that excesses of certain states and traits may not have an impact on adherence. It should be noted that our sample size was small and that our data came from a clinic whose patient population is most likely composed of persons who are careful about their glucose levels.

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OBSERVED FEEDING STYLES OF HEAD START TEACHERS AND DIETARY INTAKE OF CHILDREN

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Traditionally, parents have been the primary influence on young children’s eating behaviors. Recently preschool lunch has become an opportunity in which children’s eating regulation and food acceptance patterns may be shaped by teachers. The purpose of this study was to investigate the role of teacher’s feeding styles on dietary intake among African-American (AA) and Hispanic (H) children in Head Start (HS) centers. The feeding behaviors of 50 teachers (25 AA; 25 H) were observed on three occasions. Measures of dietary intake were calculated on 549 children sitting with the teachers during lunch at the HS centers. Observed feeding behaviors were categorized into four feeding styles (i.e. authoritarian, authoritative, indulgent, and uninvolved) based on Maccoby and Martin’s parenting typology of two dimensions – demandingness and responsiveness. In assessing observed feeding styles and children’s dietary consumption, feeding styles were associated with specific foods consumed by the children. Teachers who were uninvolved (i.e., low on both demandingness and responsiveness) had children at their table who consumed more gram amount of fruit (p = .07) and entrees (p = .03) compared to the other feeding styles. Teacher’s feeding style was unrelated to teacher’s ethnicity. However, H teachers displayed more total number of feeding behaviors (e.g. commands to eat) compared to AA teachers (p < .01). These results have important implications for the possible role of teachers in young children’s eating regulation and consumption. Caregivers such as teachers may impact overweight and caloric intake in children through their involvement during mealtimes.

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CAN SOCIAL DESIRABILITY INTERFERE WITH SUCCESS IN A BEHAVIORAL WEIGHT LOSS PROGRAM?

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Social desirability has not been examined in prior weight loss research, despite its potential to negatively impact treatment outcome. This study examines the association between social desirability and percent body weight loss in thirty-six obese participants (age: M = 44.8, SD = 9.1; Female 89%) completing a behavioral weight loss program (BWLP). At baseline, higher social desirability was associated with: 1) greater reported weight control competence and weight loss self-efficacy, 2) the reported consumption of fewer calories, and 3) fewer reported dietary lapses and more positive attitudes toward their diet as recorded in dietary relapse diaries. Higher social desirability was significantly associated with less weight loss. Weight control confidence, weight loss self-efficacy, and abstinence violation effects appeared to mediate the social desirability and percent weight loss association. Individuals high in social desirability overestimate their ability to succeed in a BWLP and may have difficulties accurately self-monitoring important diet-related behaviors, thereby contributing to a poor weight loss treatment outcome.

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GENDER EFFECTS ON THE DIETARY VARIABES OF CONFIDENCE, TEMPTATIONS, AND RESTRAINT IN WEIGHT LOSS PROGRAM PARTICIPANTS

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Men have frequently been undersampled in weight loss research. This study was conducted to explore gender differences in constructs related to dietary fat reduction among 300 overweight and obese men and women enrolled in weight loss programs in the greater Boston area. The survey included validated Trans-theoretical Model (TTM) measures of stage of change for dietary fat reduction, situational confidence, situational temptation, and the Three Factor Eating Questionnaire restraint scale (TFEQ-R).

Although significant gender differences were detected by multivariate analysis of variance (p<.05), weak effect sizes suggest that gender differences for dietary confidence, temptations, or restraint were not clinically relevant. Dietary restraint has not been previously studied with regard to constructs of the TTM. Stage of change was found to have a strong and significant effect on predicting dietary restraint however there was no stage by gender interaction. Dietary restraint was low in the early stages but increased in the preparation and action stages, with little difference between the action and maintenance stages. Results of this study suggest that the measures under investigation are appropriate to use for both men and women enrolled in weight loss programs. This simplifies assessment and intervention related to these behavioral measures. This study also provides support for the use of the TFEQ-R measure in an overweight and obese population.

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SELF-SET DIETING RULES: ADHERENCE AND PREDICTION OF WEIGHT LOSS SUCCESS

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The low achievement rates among dieters could be partially due to ineffective dieting strategies, or an inability to adhere to them in the long term. The present research examines the effectiveness of self-set dieting rules for achieving dieting goals. Specifically, it investigates how the types of dieting rules and the extent to which dieters adhere to them predict dieting success. A prospective study with reassessment after two months was conducted and analyzed in 2003. Participants completed measures assessing self-set dieting rules, dieting goal, and height and weight at Time 1 and Time 2. Participants were 132 currently dieting females recruited on a university campus. Data were analyzed using x2 tests and multiple linear regression. Overall, adherence to dieting rules was rare. Reduction of caloric intake and increase of exercise predicted weight loss success. Results further demonstrate that sustained adherence to the dieting rules "reducing calories" and "increasing exercise" is effective for achieving self-set dieting goals. Encouraging long-term adherence to effective rules could help increase the number of successful self-controlled dieting efforts.

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MOOD MANAGEMENT STRATEGIES AND HEALTH BEHAVIORS ASSOCIATED WITH WEIGHT CONCERN IN COLLEGE WOMEN

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Eating behavior has been reported by women as both a strategy to cope with negative emotions and a stressor that produces negative mood states. No previous study has investigated the association of eating as a mood management strategy to weight concern in a model containing other mood-related variables and health behaviors. Because weight-concerned women are at risk for use of maladaptive coping strategies (e.g., cigarette smoking), identification of health behaviors and mood management strategies associated with weight concern may assist in development of interventions for women with weight concern. As part of a larger survey study, 332 college women (96% White; 58% first-year student) completed self-report measures, including the Stanford Weight Concerns Scale, CES-D Response Styles Questionnaire, and a physical activity questionnaire (ACLS). Univariate analyses indicated that the following variables were significantly associated (p ≤ 0.05) with weight concern: eating coping, tobacco coping, stress, depressive symptoms, and physical activity frequency. Study variables were simultaneously with weight concern: eating coping, tobacco coping, stress, depressive symptoms and physical activity. College women with greater weight concern report more stress and depressive symptoms and the use of eating as a mood management strategy, which can further exacerbate negative mood and weight concern. Development of a mood management intervention for weight concerned college women that provides an alternative to eating coping appears warranted.

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THE IMPACT OF OVEREATING ON MOOD AMONG COLLEGE WOMEN

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PURPOSE: Overeating’s impact on mood among college women was examined. Eating was compared to distraction and time. BACKGROUND: Research has focused on emotional antecedents to overeating, and less on its emotional consequences. Negative moods precipitate bingeing; however few studies have examined the mechanisms responsible. METHODS: Participants (n=144) were randomized to one of 9 cells in a 3 (Mood) X 3 (Task) design. Mood was induced using the Velten (Positive, Negative, no mood) and measured using Vigor and Depression subscales of the Profile of Mood States (POMS) across three 15-minute conditions; eating (810 kcal pizza), cognitive task (distraction), and wait period (time). Sentence Completion was used to examine self-focused attention. RESULTS: Eating induced more affective changes than the other conditions. Eating decreased vigor in the positive (F(1,134)=5.71, p<0.05) and no mood conditions (F(1,134)=3.39, p<0.05), and increased vigor in the negative condition (F(1,134)=4.48, p<0.05). Eating decreased depression in the negative mood (F(1,134)=10.75, p<0.01) and no mood conditions (F(1,134)=7.8, p<0.05). Waiting (F(1,134)=12.78, p<0.01) and distraction (F(1,134)=16.13, p<0.01) were associated with increased depression in the negative mood condition. Waiting, in no mood condition, was associated with decreased vigor. No other changes were noted. There was a trend for a shift to external self-focus in negative and no mood overeating conditions. CONCLUSIONS: Results suggest that overeating has a more robust impact on mood than a distracting task or time, which are alternative mechanisms to understand the impact of eating on mood. Further research on the shift in attentional focus as a potential mechanism to explain emotional eating is needed.

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CORRELATES OF FUNCTIONAL FITNESS IN OLDER ADULTS

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Functional fitness, or the capacity to safely and independently perform normal daily activities without undue fatigue or pain (Rikli & Jones, 2001), is an important aspect of quality of life among older adults, yet there is little knowledge about its correlates. The objective of this study, therefore, was to determine the extent to which physical, demographic, and psychosocial factors contributed to variation in functional fitness. Older adults (N = 190, M age = 69.4 yrs) completed a functional fitness test battery, maximal graded exercise test, and demographics and self-efficacy questionnaires at baseline of a randomized controlled exercise trial. Structural equation modeling of the functional fitness battery supported two latent factors representing “Flexibility” and “Physical Power.” Further analyses indicated that sex was the sole significant correlate of Flexibility, such that women were more flexible than men. Greater Physical Power, on the other hand, was associated with being male, younger, and having greater cardiorespiratory fitness and higher self-efficacy. These results highlight the extent to which physical, demographic, and psychosocial factors contributed to variation in functional fitness. Older adults (N = 190, M age = 69.4 yrs) completed a functional fitness test battery, maximal graded exercise test, and demographics and self-efficacy questionnaires at baseline of a randomized controlled exercise trial. Structural equation modeling of the functional fitness battery supported two latent factors representing “Flexibility” and “Physical Power.” Further analyses indicated that sex was the sole significant correlate of Flexibility, such that women were more flexible than men. Greater Physical Power, on the other hand, was associated with being male, younger, and having greater cardiorespiratory fitness and higher self-efficacy. These results highlight not only the roles of age, fitness, and sex, but also of psychosocial factors such as self-efficacy in influencing performance on basic functional tasks. To improve functional fitness among older men and women, these results suggest structuring programs to target flexibility and physical power, respectively. Furthermore, these results suggest that efforts to enhance self-efficacy may positively impact the functional fitness of older adults.

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EMOTIONAL CONTROL AND AVOIDANCE IN BINGE EATING DISORDER
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Researchers have proposed that binge-eating may represent a strategy for avoiding negative emotions. To investigate this hypothesis, this study examined self-reported levels of experiential avoidance, affective control, and ratings of negative emotions and urges to binge eat following exposure to visual stimuli among individuals with Binge Eating Disorder (BED), Subclinical BED, and non-binge eating controls. The visual stimuli used in this task included images selected from the International Affective Picture System.

Forty-nine participants (16 BED, 18 SBED, 15 controls) viewed emotional, food-related, and affectively-neutral images presented in blocks of six. After viewing each block, participants rated their negative emotions and urge to binge-eat. They also completed the Acceptance and Action Questionnaire (AAQ) and Affective Control Scale (ACS). After viewing emotional images, individuals in the BED group reported higher levels of experiential avoidance, and individuals in the SBED group reported higher urge to binge, compared to controls. Participants with BED and SBED reported greater urges to binge compared to controls when viewing food-related images. The BED group scored significantly higher on the AAQ compared to controls, suggesting higher levels of experiential avoidance. The BED group also evidenced higher total scores on the ACS as well as higher scores on depression and positive affect subscales. These results suggest that BED may be related to fear of losing control over emotions, particularly depressive and positive emotions. Together, results indicate that individuals with BED report greater avoidance and attempts to control emotional experiences, as well as more negative affect when exposed to emotional stimuli and greater urges to binge eat when exposed to food-related stimuli.

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WEIGHT-RELATED BELIEFS AND BEHAVIORS AMONG A DIVERSE SAMPLE OF JOB CORPS STUDENTS
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The Job Corps mission is to provide education and job training to disadvantaged youth to improve their long-term employability. However, weight-related health problems may limit short- or long-term employability. This study assessed weight and related beliefs and behaviors of students entering a Job Corps site in Massachusetts. Students were consecutively recruited at their pre-enrollment medical evaluation. A brief survey was administered and anthropometric measures were collected. Frequency distributions were used to describe the cohort and t-tests used to compare groups. Participants were 187 students (male=108, female=79), age range: 16-24, evenly representing White, Latino and Black ethnicities. Mean BMI was 26.8 (SD=7.3). Females were more likely to be overweight or obese than males (p<0.01). Overweight/obesity was not related to ethnicity, although gender differences within ethnic groups were observed. Among overweight and obese students (n=87), perception of being overweight was greater among females compared to males (79% vs 45% respectively, p = .004). Most overweight/obese students (94%) were aware of the association between excess weight and cardiovascular problems, although fewer were aware of diabetes risk (71%). Weight loss efforts were related to younger age (p=0.02), and the most common weight loss approaches were exercise (48%) and caloric reduction (31%). If further research demonstrates similar weight trends at Job Corps sites across the country, then efforts to promote weight loss will be needed to ensure that the Job Corps mission of preparing disadvantaged youth to enter the work force and become productive members of society is not impeded by the obesity epidemic.

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WHO PERCEIVES THEMSELVES AS OVERWEIGHT VERSUS UNDERWEIGHT? RESULTS FROM A NATIONAL SURVEY
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Over 64% of U.S. adults are overweight or obese according to recent national data. However, people’s self-perceptions of their weight may differ from their clinical weight category using standard body mass index (BMI) criteria. In this study, we used signal detection methodology to identify the best combinations of predictors of participants who: 1) perceived themselves as more overweight than they were according to their clinical BMI category, and 2) perceived themselves as more underweight than they were according to their clinical BMI category.

As part of the 2001 American Cancer Society National Health Determinants Survey, 6,170 adults (55% women, 70% Caucasian, BMI=28.4±6.9 kg/m², age=48.9±15.9 years) from a nationally representative sample of U.S. households self-reported their body weight and height and rated their perception of their weight. Participants were most likely to perceive themselves as more overweight if they had a body mass index (BMI) at the upper end of the “normal weight” clinical BMI category (23 ≤ BMI ≤ 25) and were currently trying to lose weight. Participants were most likely to perceive themselves as more underweight if they were in the “overweight” clinical BMI category (30 < BMI ≤ 34) and male. These findings highlight the need for obesity and body image awareness interventions specifically tailored to different population subgroups.

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WEIGHT CONTROL SELF-EFFICACY IN A RESIDENTIAL OBESITY TREATMENT PROGRAM
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Self-efficacy expectations may predict weight loss or maintenance in obese populations because beliefs about one’s ability to control food intake affect both behavioral strategies for weight management and motivation to continue these behaviors. Participants were 87 treatment-seeking obese individuals enrolled in the Structure House residential weight control and lifestyle change program. Mean body mass index was 42.46 (SD=11.77) at pre-treatment. Participants completed the Weight Efficacy Life-Style Questionnaire-Revised (WEL), Beck Depression Inventory, and the Gormally Binge Eating Scale, prior to weight-loss treatment and again at post-treatment. The mean duration of residential treatment was 26.81 days (SD=5.67). Body mass index did not correlate significantly with weight loss self-efficacy, indicating that confidence in resisting overeating (measured by the WEL) was not related to degree of overweight. Consistent with previous findings, weight loss self-efficacy showed a significant negative correlation with binge eating (r = -.55), and depression (r = -.37).

Results also indicated a significant increase in weight loss self-efficacy during treatment in all five situational categories (negative emotions, availability, social pressure, physical discomfort, and positive activities; all p < .001), suggesting that weight loss self-efficacy can be increased over a relatively short period. This increase in self-efficacy may result from gaining greater insight into eating patterns, skill development in handling high-risk situations, managing stimuli associated with overeating, and relapse prevention strategies. Additionally, success with improved functional capacity and weight loss may increase motivation to continue these behaviors, which may then impact confidence in managing overeating.

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THE RELATIONSHIPS AMONG RESPONSES TO HYPOTHETICAL HIGH RISK DIETARY EVENTS, ACTUAL DIETARY CRISSES, AND TREATMENT OUTCOME IN A BEHAVIORAL WEIGHT LOSS PROGRAM

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The purpose of this study was to determine whether the ability to generate coping responses on a hypothetical high risk task (HHRT) as well as the enactment of coping during actual dietary crises (using ecological momentary assessment) is associated with favorable weight loss treatment outcome. Participants were forty-four obese, sedentary adults in a behavioral weight loss program. Regression was used to examine whether pretreatment or posttreatment HHRT performance, or coping to actual dietary crises predicted weight loss by the end of treatment. Post-treatment HHRT coping responses were associated with percent body weight lost. Greater total coping β = .48, t(35) = 2.36, p < .05 and behavioral coping β = .40, t(35) = 2.01, p < .05 were associated with a higher percent body weight lost. Responses to actual dietary crises was also associated with percent weight loss at the end of treatment. Ghn addition greater cognitive coping, β = .41, t (32) = 2.43, p < .05, and total coping, β = .43, t (32) = 2.60, p < .05, were significantly associated with a higher percentage of total body weight lost at the end of treatment. The ability to generate coping responses as well as the enactment of coping during actual dietary crises is associated with favorable weight loss treatment outcome.

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F-61 Citation Poster

EMOTIONS AND CANCER ONSET: RESULTS FROM A PROSPECTIVE STUDY

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Objectives: To examine the role of anger repression (AR) and positive (PA) and negative affect (NA) in cancer onset using data from a prospective study.

Study Sample: English-speaking participants (n=19730) aged between 40 and 60 with no history of cancer. 61% were female.

Dependent measures: 1945 incident cancer cases (352 breast, 318 prostate, 88 lung and 280 colorectal) identified from population-based cancer registry during a 12-year follow-up period.

Independent measures: Courtalid Emotional Control Scale’s AR scale and PA and NA, assessed via questionnaire. Lifestyle and biological risk factors for cancers were treated as covariates.

Analyses: ANOVAs compared means and Cox proportional hazards regression estimated relative risk (RR) of cancer controlling for risk factors.

Results: Breast cancer onset was not associated with any emotion scale. Prostate cancer was associated with AR at a bivariate and multivariate level. Higher AR scores were associated with greater risk of prostate cancer (RR=1.17, 95%CI:1.05-1.31). In bivariate analyses, lung cancer was associated with increased AR and NA, however only NA remained significant after adjusting for cigarette smoking (RR=1.27, 95%CI:1.04-1.54). Colorectal cancer was associated with increased AR and NA in bivariate analyses only. Developing any cancer was not associated with AR, NA or PA in multivariate analyses.

Conclusions: With the exception of prostate cancer, when other risk factors for cancer are controlled, there is little role for emotions in cancer onset. As much work in this area has focused on breast cancer, the results of this study suggest the association between AR and prostate cancer warrants further examination.

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F-62 CURRENT MOOD AND FOOD CHOICES: THE RELATION BETWEEN POSITIVE AFFECT AND DIETARY BEHAVIOR

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Colloquially, much is made of the relation between food and mood. For example, “comfort foods” are eaten in the service of affect regulation. Affect can influence behavioral choices in a number of ways. We investigated whether college students’ mood when making dietary choices influenced the nutritional value of the foods chosen. Sixty-five participants completed a questionnaire immediately prior to eating a meal in a college dining hall. The questionnaire included a measure of current positive affect. Following the meal, participants reported what they ate for dinner. Using nutritional data from the college dining services, we used participants’ self-reported food intake to compute measures of caloric intake at the meal, total and saturated fat consumption, sodium consumption, and cholesterol consumption. To examine the relation between positive affect and food intake, we categorized participants as currently experiencing either high or low levels of positive affect based the self-report affect measure. Those experiencing higher levels of positive affect consumed significantly more calories and had higher sodium, cholesterol, and total fat intake than those with lower levels of positive affect; all F(1,63)=4.5, all p<0.05. The two groups did not significantly differ on saturated fat consumption, although the mean differences showed higher levels for those who were experiencing more positive affect. These findings demonstrate that current mood may have an influence on individuals’ dietary behavioral choices and that higher levels of positive affect may lead to dietary choices associated with weight control issues. These findings have implications for both understanding the affect-behavior relation and for designing effective dietary interventions.

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F-63 THE RELATIONSHIP BETWEEN SELF-EFFICACY AND SELF-ESTEEM AND WEIGHT LOSS, DIET, AND EXERCISE

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The present study examined the relationship between several self-efficacy and self-esteem measure and weight loss, diet and exercise. The participants in this study were 37 obese, sedentary men and women who took part in a 20-session behavioral weight loss program based on the LEARN manual (Brownell, 2004). Self-efficacy and self-esteem were assessed using the following measures: Exercise Self-Efficacy Scale (Bandura, 1997), Eating Self-Efficacy Scale (Glynn & Ruderman, 1986), Self-Efficacy Scale (Sherer, 1982), and Rosenberg’s Self-Esteem Scale (Rosenberg, 1965). Diet was assessed using a 4-day self-report food diary. Exercise was assessed using the Paffenbarger Physical Activity Questionnaire (Paffenbarger, Wing, & Hyde, 1978).

Results revealed that participants’ levels of self-esteem and eating self-efficacy significantly improved from pre- to post-intervention (p < .01, r = .32, respectively). Eating self-efficacy at pre- and post-intervention was associated with percentage weight loss (p < .01, r = .32, respectively). Self-esteem and exercise self-efficacy at post-intervention was significantly associated with percentage weight loss at post-intervention (p < .02, r = .31, respectively). Self-esteem and exercise self-efficacy scores at post-intervention were associated with scores on the Paffenbarger (p < .01). Finally, general self-efficacy at pre-intervention was associated with percentage weight loss at post-intervention (p = .02). The results suggest that the LEARN program is effective in improving self-esteem and diet related self-efficacy. Also, it appears that general self-efficacy, as well as diet and exercise related self-efficacy, is associated with weight loss.

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RESTAURANT EATING PATTERNS IN NONPURGE BINGE EATING WOMEN
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Eating out at restaurants may be a factor contributing to the obesity epidemic. Yet, little is known about restaurant eating patterns in nonpurge binge eating women, who struggle with control over eating behavior. This descriptive study describes and compares restaurant eating patterns in nonpurge binge eating women and a comparison group of dieters.

This secondary analysis derived its prospective data from the content analysis of 14-day food diaries. The restaurant eating patterns of 71 women who reported binge eating at least weekly without purging and 46 dieters without a binge eating history were examined. Participants were primarily Caucasian (80%) with a mean age of 43 (SD = 11.6) and a BMI of 30.8 (SD = 7).

In comparing bingers with dieters, there were no significant differences in frequency of eating out, how often desserts were consumed at restaurants, or frequency of eating at fast food restaurants. Bingers more often perceived their restaurant eating episodes to be uncontrolled (t(114.7) = 3.2; p < .01) with excessive amounts consumed (t(113.6) = 4.8; p < .001). Significantly more calories (p < .001) and fat (p < .01) were consumed on restaurant eating days compared to non-restaurant eating days for both groups.

The extra 200 kcal consumed on restaurant eating days could contribute to weight gain over time, especially with the high frequency of restaurant eating (mean for eating out over 2 weeks = 9.3; SD = 6). Restaurants may present a high risk environment for bingers who are more likely to view restaurant eating episodes as being uncontrolled with excessive amounts consumed.

This study was funded by NINR (R15NR04481-01A1).
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PERCEIVED ENERGY EXPENDITURE FOR PHYSICAL ACTIVITY BY ACTIVITY LEVEL IN MALE AND FEMALE ADULTS
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Overweight and obesity are the result of a positive energy balance between energy intake (EI) and energy expenditure (EE). Behaviors that influence dietary choice and participation in physical activity (PA) may be influenced by cognition, i.e., knowledge, beliefs, and understanding about EI and EE. Some individuals use information about calories in EE and for EE to create a plan to manage their weight. The purpose of this study was to evaluate the relationship between perceived (EE) for physical activity (PA) and the following variables; age, gender, BMI, education, and leisure time physical activity. A 19-item interviewer administered questionnaire was completed by 798 individuals to assess accuracy of perception of EE (in calories) for various types of PA (sedentary, moderate and vigorous). Participants, age 21 to 64 years, were recruited from 10 sites of the Department of Motor Vehicles in Miami, Florida. Younger individuals (21-30 years of age) were significantly (p<0.05) more accurate in their perception of EE for moderate and vigorous PA compared with older individuals. The range for estimated EE for one hour of sedentary, moderate or vigorous PA was from 0-10,000, 0-60,000 and 0-20,000 calories respectively. Only 30% of the participants were able to accurately assess EE for PA. Higher education was associated with greater accuracy. Eighty-four percent of the participants reported that they had guessed the estimated caloric value for the various PAs. Future studies should be designed to assess the impact of knowledge of EE (calories) on participation in PA and in successful weight management.
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DIFFERENCES IN PHYSICAL ACTIVITY AMONG SUBGROUPS OF WOMEN WITH FIBROMYALGIA SYNDROME
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Fibromyalgia syndrome (FMS) is a chronic pain condition of unknown origin that lacks standardized treatment. Physical activity (PA) interventions have been linked to improvements in physical and psychosocial functioning among people with FMS; however, high attrition rates and inconsistent treatment outcomes have impeded the development of generalized PA treatment recommendations. Some researchers have proposed that FMS may be composed of patient subgroups with varying levels of physical and psychological functioning, and that interventions may need to be tailored to address differing needs of these subgroups.

The purpose of the present study was to explore differences in PA among subgroups of women with FMS. Participants were 560 women with FMS (85% Caucasian, 65% married, 50% employed, mean age = 54, SD = 11) who were divided into three previously validated subgroups (adaptive copers, dysfunctional, interpersonally distressed). Multivariate analysis of variance was conducted comparing the three subgroups on their total minutes of PA and self-efficacy for PA. Results indicated that the subgroups significantly differed on both variables, Wilks Lambda F(4, 1110) = 9.51, p < .001. Planned contrast tests indicated that adaptive copers reported significantly more minutes of PA and higher self-efficacy for PA than the other two subgroups; the dysfunctional and interpersonally distressed subgroups did not differ significantly from one another. These results highlight a potential relationship between adaptive coping and PA in women with FMS, and support the idea of tailoring PA interventions to match varying needs of FMS patient subgroups.
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DEMOGRAPHIC CHARACTERISTICS ASSOCIATED WITH SMOKING AND SMOKING OUTCOME EXPECTANCIES IN CHILDREN
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Little is known about the relationship between demographic characteristics, smoking status, and smoking outcome expectancies in children. It was hypothesized that sex, race, age group, and smoking status would be related to positive, negative, and weight control outcome expectancies. Participants were elementary school children (N=678), randomly assigned to an environmental alcohol and tobacco, or obesity prevention program. Smoking outcome expectancies and self-reported smoking status were collected at baseline. A Multiple Analysis of Variance (MANOVA; sex x race x age group x smoking status) was conducted, with the three subscales (Positive Consequences, Negative Consequences/Effects, Weight Control) of a newly developed smoking outcome expectancy measure included as the dependent variables. Significant main effects of sex on the Positive Consequences subscale, and age group on Negative Consequences/Effects subscale were revealed. Males scored significantly higher on the Positive Consequences subscale than females, F(1, 644)=4.301, p=.038. Children of each age group scored significantly different from other age groups on the Negative Consequences/Effects subscale, F(4, 644)=2.42, p=.047. Significant interactions between sex and age group, F(4, 644)=2.73, p=.029, smoking status, and age group, F(4, 644)=2.53, p=.039, and sex, race, and age group, F(4, 644)=4.33, p=.002, were revealed on the Negative Consequences/Effects subscale. Results indicate that sex, race, age group, and smoking status are important factors to consider when evaluating smoking outcome expectancies in children.
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SMOKING AND WEIGHT CONCERN IN CHILDREN: A PROSPECTIVE STUDY

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Research indicates that weight concern may play a role in smoking initiation and maintenance in children. It was hypothesized that children who smoke would endorse higher levels of weight concern across time on the Children’s Version of the Eating Attitudes Test (CheAT). Participants were school children (N=705), randomly assigned to an environmental tobacco or obesity prevention program. CheAT and self-reported smoking status were collected at baseline and after 5 months. Children were categorized into 3 types of smoker (smoker, started smoking, never smoker) based on their self-reports at the 2 time points. Repeated Measures Analysis of Covariance (ANCOVA; sex x race x smoker type), with CheAT total score as the dependent variable, indicated a main effect of smoking status. Smokers scored significantly higher on the CheAT than never smokers, F(2, 690)=3.558, p=0.029. Repeated Measures ANCOVA (sex x race x smoker type), with the CheAT subscales as the dependent variables, indicated a main effect of smoking status on the Dieting subscale, F(2, 690)=3.987, p=0.019, and a main effect of race on the Social Pressure to Eat subscale, F(1, 690)=5.992, p=0.015. Children who smoked scored higher than never smokers on the Dieting subscale, and Blacks scored higher than Whites on the Social Pressure to Eat subscale. Findings suggest that weight concern is higher among children who smoke than those who have never smoked. Race appears to be an important factor on the Social Pressure to Eat subscale only.

Supported by NIH grant #R01DK063453.

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ASSOCIATIONS BETWEEN PHYSICAL ACTIVITY AND AMBULATORY BLOOD PRESSURE IN AFRICAN AMERICAN ADOLESCENTS

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Studies have shown that elevated nighttime BP is associated with greater cardiovascular disease (CVD) risk of stroke and end-organ-damage. Additionally, 30% of healthy African American adolescents have elevated nighttime blood pressure (BP) and can be classified as non-dippers (show <10% decrease in mean BP from awake to asleep) which may place them at increased risk for developing hypertension in early adulthood. Evidence indicates that physical activity (PA) may be protective against the development of hypertension and CVD among adult populations. This study examined the relationship between PA and ABP in 50 healthy African American adolescents (23 females, 27 males; ages 11 to 15 years). Participants wore an ABP monitor for 24 hours and an accelerometer for 5 days. Participants were classified into high or low PA categories using a median split and as dippers and non-dippers based on their ABP estimates (dippers>10% decrease in mean BP from awake to asleep; non-dippers<10% decrease in mean BP from awake to asleep). Boys were more likely than girls to be classified into the high PA category (76% vs. 24%, p<0.05). Those who were more physically active also had lower Body Mass Indices (20.2 vs. 22.6, p<0.001). More importantly, those who were classified as high on PA were less likely to be non-dippers than those who were classified as low on PA (10% vs. 18%, p=0.06). These data demonstrate that PA may be a protective factor that reduces the risk of non-dipping status in African American adolescents.

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ETHNIC AND GENDER DIFFERENCES IN PHYSICAL ACTIVITY MOTIVATION AND BEHAVIOR AMONG 4th TO 6th GRADE STUDENTS

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In the present study, we examined predictors of leisure-time physical activity motivation and behavior among children, and the potential direct and moderating effects of gender and ethnicity. Participants were 446 (281 Asian; 165 Caucasian) nine to eleven-year-olds who completed measures of the Theory of Planned Behavior (TPB) and physical activity behavior (PAQ-C) across five three-month intervals (i.e., four prediction time-periods). The TPB explained 20% of the variance in physical activity behavior and 54% of the variance in intention when averaged across the four prediction periods. Overall, intention (β=22), perceived behavioral control (PBC; β=19), and affective attitude (β=12) were significant (p<.01) contributors to the direct prediction of behavior. PBC (β=27), affective attitude (β=24), injunctive norm (β=21), and descriptive norm (β=20) were significant (p<.01) predictors of intention. Gender and ethnicity were significant correlates (p<.01) of physical activity behavior, but not intention. Boys engaged in more physical activity than girls and Caucasians engaged in more physical activity than Asians. Interestingly, the TPB did not mediate the relationship between gender and physical activity (F²=.02), and only partially mediated the relationship between ethnicity and physical activity through PBC (F²=.02). Finally, gender and ethnicity did not show any consistent moderating effect on the TPB and physical activity. These data suggest that promoting physical activity in children may require attitudinal, normative, and control-based intervention. Asians may require augmented control-based intervention compared to Caucasians. Additional variables beyond the TPB may be needed to understand gender and ethnic differences in physical activity.

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PARENTAL PERCEPTIONS OF OVERWEIGHT IN 3-5 YEAR OLDS

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Parents who do not recognise the weight status of their overweight children may be less likely to provide them with support to achieve a healthy weight. Recent results from the US suggest that awareness may be particularly low in mothers of very young children, who tend to view heaviness as an indicator of good health (Baughcum et al, 2000; Jain et al, 2001). This study assessed the accuracy of parents’ perceptions of their preschool children’s weight status in a large UK sample. Parental perceptions and concern about child weight, demographic variables, and children’s height and weight were obtained for 364 parent-child dyads. Only 1.6% of parents of overweight children and 17.1% of parents of obese children described their child as overweight. The odds of parents perceiving the child as overweight increased in overweight (OR 2.72; 95% CI 0.45-16.49) and obese (28.55; 7.06-115.42) groups compared with the normal weight group, but were not associated with parental weight or with any demographic factors. Although few parents perceived their overweight child as overweight, more (66.2%) expressed concern about their overweight child becoming overweight in the future. Odds of concern were progressively higher for overweight and obese children, and were also higher for parents who themselves overweight. These findings suggest that parents of 3-5 year olds show poor awareness of their child’s current weight status. Re-framing discussions in terms of preventing future overweight may be an effective way to engage parents.

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PERCEPTIONS OF TEASING, QUALITY OF LIFE AND OBESITY IN AFRICAN AMERICAN ADOLESCENTS

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Although pediatric obesity rates have increased in both genders and in all ethnic groups, females and children of color are at greatest risk. A multi-phase, multidisciplinary program consisting of physicians, psychologists, exercise physiologists, and dieticians was organized to better understand the problems and challenges of pediatric obesity in a culturally diverse population. Present analyses, based on initial assessment of 39 female African American adolescents (M age = 13.96 years) and their mothers indicated that adolescents were severely obese (M BMI = 40.8; M weight = 111.5 kg). Multiple regressions indicated that social quality of life (QoL) was most strongly associated with teasing; adolescents with higher rates of teasing had lower social QoL. Teasing also emerged as a positive predictor of motivation to participate in the program, whereas greater self-esteem was negatively related to participation. Mothers’ ratings of the amount of family conflict, their daughters’ self-esteem, and QoL were significantly associated with their concerns about their daughters’ eating behaviors. Specifically, mothers who perceived their families as less conflictual, rated their daughters as having higher self-esteem and higher QoL, expressed less concern about their daughters’ eating. Overall, results suggest the importance of using a family framework in designing a pediatric obesity intervention that involves family members in the program. Further data collection and analyses of adolescent boys and follow-up phases will enable us to identify factors related to health behavior outcomes in African American adolescents and their mothers.

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MEDICAL AND DEMOGRAPHIC PREDICTORS OF THE QUALITY OF LIFE OF CANCER SURVIVORS AND CAREGIVERS

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Cancer survivors and their caregivers experience the same stress of a cancer diagnosis and treatment, which affects the quality of life (QoL) of each individual. This study examined two levels of predictors of individual’s QoL: cancer-level predictors are the general stressors shared by the survivor-caregiver dyad; and individual-level predictors are specific characteristics of each individual in a dyad. The cancer-level predictors include mortality rate, cancer stage, and number of treatment types. The individual-level predictors include being a survivor vs. caregiver, age, gender, levels of education, income, and mental or physical functioning. Individual mental and physical composite scores of SF-36 were outcomes. Of a larger implementation study of caregivers, 302 survivor-caregiver dyads were included in the current analyses: 63% female and mean age of 56.9. Survivors were diagnosed with one of 10 cancer sites (e.g., 26% breast, 13% prostate, 12% colorectal); and the majority (60%) received more than one type of treatment. Results from HLM analyses showed that among cancer-level variables, none predicted an individual’s physical functioning, whereas an advanced cancer stage predicted individual’s poorer mental functioning (p<.05). Among individual-level variables, being a survivor, older age, or lower income predicted poorer levels of physical functioning; and being female predicted poorer levels of mental functioning (p<.05). The findings suggest that an individual’s psychological characteristics as a survivor or caregiver, rather than characteristics of the cancer, are more significant predictors of physical and mental functioning of individuals touched by cancer.

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EFFECT OF GENDER AND SES ON PHYSIQUE ANXIETY, SELF-WORTH AND BODY IMAGE: INFLUENCES ON PHYSICAL ACTIVITY PARTICIPATION IN UK ADOLESCENTS

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To understand factors influencing adolescents’ physical activity participation, this study investigated the effects of gender and SES on body image discrepancy (BID), social physique anxiety (SPA) and perceived self-worth (PSW), in relation to total activity participation (TAI) and outdoor (TAO) of school.

From five UK schools, 294 adolescents completed questionnaires on BID, SPA, PSW and physical activity (SPARKS). Past final exam grades determined SES for schools. Results indicated boys participated in more activity (t(223)=4.38, p<.001) and have lower SPA levels (t(1,275)=7.453, p<.001) and higher PSW levels (t(1,25)=4.14, p<.001) when compared to girls. Adolescents from lower social classes did more activity both in (F2,76=4.06, p<.05) and out (F2,77=5.03, p<.01) of school and had lower SPA (F2,92=9.08, p<.01) than those from higher SES schools. SPA, PSW and perceived body image (PBI) predicted TAO for the whole population (SPA (R= .135, p<.01), PSW (R= .07, p<.05) and PBI (R= .05, p<.05)), while SPA determined TAI for girls and boys (R= .11, p<.05).

Thus, promoting activity for girls has to be a primary focus through reducing social physique anxiety and improving physical self-worth. Contrary to expectations, students in higher SES groups were less active with more physique anxiety and lower PSW, which may be due to stage of development or perhaps sample bias. These findings can assist educators in tailoring activities with these factors in mind, creating environments to promote self-worth and diminish SPA and BID.

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RELATIONSHIP OF POSTTRAUMATIC STRESS TO DAUGHTERS’ BREAST CANCER SCREENING

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Few studies have investigated posttraumatic stress (PTS) in daughters of breast cancer survivors; none have assessed relationships between PTS and cancer screening. This study investigated PTS symptoms related to breast cancer, and how those symptoms relate to prevention and cancer screening behavior by daughters of breast cancer patients. Participants consisted of 64 women (age 36 to 95, X=65) with breast cancer and their daughters (age 15 to 71, X=40). 73.4% of the patients were Caucasian, 23.4% African-American, 1.6% Asian, and 1.6% other. 84.4% of daughters were Caucasian and 15.6% African-American. The PTSD Reaction Index (RI), self-report of participant’s perceived risk, daughters’ breast self-examination (BSE) and mammography frequency were collected. Total severity scores were created for mother’s and daughter’s PTS related to mother’s cancer. In hierarchical regressions, mothers’ PTS was correlated with daughters’ BSE (R=.32, p=.02), although daughters’ PTS was not correlated to BSE frequency. Daughters’ PTS correlated significantly with their mammography usage (R=.45, p=.012), although mothers’ PTS was not related to daughters’ mammography. Daughter’s BSE and Mammography frequency were not correlated. Daughters’ perceived risk of acquiring breast cancer was related to daughters’ PTS, but not to BSE or mammography. The relationship between mothers’ PTS and daughters’ BSE was nonlinear, indicating that daughters who overperformed BSE had mothers with significantly higher levels of PTS than daughters who performed BSE at levels consistent with recommended guidelines and those who underperformed BSE. Different demands of Mammography and BSE are discussed. Results highlight the intergenerational effects of a cancer diagnosis on family member’s prevention and screening behaviors, and point to the need for family focused interventions.

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SATISFACTION WITH LIFE AND MARITAL ADJUSTMENT IN HUSBANDS OF WOMEN WITH BREAST CANCER: RELATIONSHIP TO WIFE’S CHANGING HEALTH STATUS

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It is increasingly recognized that the adjustment of spousal caregivers of cancer pa-
tients is closely related to the well being of the patients themselves; however, how pa-
tient variables may influence spousal adjustment remains unclear. The purpose of the current study was to examine how, over time, changes in the health of women with breast cancer (BC) might relate to spousal satisfaction with life and ratings of marital adjustment, and examine whether or not similar relationships exist in a sample of hus-
bands of healthy women. Participants included 31 husbands of women undergoing chemotheraphy treatment in a midwestern cancer center, and 49 husbands of women without a chronic or acute illness. Husbands completed the Locke-Wallace Marital Adjustment Scale (MAT) and the Satisfaction with Life Scale (SWL) as well as the Quality of Well Being scale by proxy for their wives at baseline (time 1) and one year later (time 2). Separate hierarchical linear regressions were conducted for each de-
pendent variable for the BC group and the comparison group separately, controlling for baseline scores. In the BC group, changes in wife health accounted for 21.5% of the variance of time 2 SWL, and 12.6% of the variance of time 2 marital satisfaction. No such relationships were found for the comparison group although adequate vari-
ance in change scores for wife’s health was present. Results suggest that during the struggle with breast cancer, husband adjustment is closely related to changes in wife health status, which may not be the case during other life periods.

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PASSAGE OF TIME FOLLOWING INTERPERSONAL BETRAYAL AND FORGIVENESS: PREDICTIVE RELATIONS WITH EMPATHY AND TRAUMA SYMPTOMATOLOGY

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Research has demonstrated relations among forgiveness, empathy, and trauma symptomology in regards to an act of interpersonal betrayal. For forgiveness of cheat-
ing behavior in a romantic relationship, a positive relation existed between forgive-
ness and empathy, and a negative relation existed between forgiveness and trauma symptomology. Both empathy and trauma symptomology were significant predictors of reported forgiveness of the betrayal. This analysis was conducted to explore whether these previously reported relations among empathy, trauma symptomology, and forgiveness of betrayal in romantic relationships were influenced by length of time since the betrayal occurred. Participants included 229 undergraduates. Partici-
pants were categorized into two groups: one group whose experience of the betrayal was within a year (N = 119) and a group whose experience of the betrayal occurred longer than a year prior to time of participation (N = 110). For the group betrayed within a year of rating their forgiveness, both empathy (r = .29) and trauma symptomology (r = -.28) were significantly correlated with state forgiveness of the betrayal and hierarchical multiple regression analysis revealed that both empathy and trauma symptomology were significant predictors of forgiveness for this group. How-
ever, for the group betrayed over a year ago at participation, only trauma symptomology remained significantly correlated to forgiveness of the betrayal (r = -.35) and predicted forgiveness for participants in this group. These results indicate that empathy predicts forgiveness only within the year following the incident of bet-
trayal in an interpersonal relationship, and trauma symptomology predicts forgive-
ness regardless of length of time since the occurrence of the betrayal.

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COMPROMISING HEALTH BEHAVIORS AS COPING AMONG HUSBANDS OF BREAST CANCER PATIENTS: RELATIONSHIPS WITH PSYCHOSOCIAL VARIABLES

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1Psychology, Indiana University Purdue University Indianapolis, Indianapolis, IN. The use of food, alcohol, and illicit drugs are well-documented methods of coping used during stressful life events. Breast cancer is a stressful event for husbands of pa-
tients. The purpose of the present study was to examine how coping through eating, drinking and drug use was related to the psychosocial adjustment of husbands. Particip-
ants included 82 husbands recruited in a chemotherapy infusion area while their wives were receiving adjuvant treatment. Participants were asked to complete a series of questionnaires assessing a broad range of psychosocial variables including stress (Subjective Stress Scale), marital satisfaction (Locke Wallace Marital Adjustment Test), social support (Interpersonal Support Evaluation List), optimism (Revised Life Orientation Test), satisfaction with life (Satisfaction with Life Scale) and depression (CES-D). Husbands were dichotomized based on their responses to a question from the Ways of Coping Questionnaire that assessed use of eating, drinking, or drugs to cope (never used versus used to various degrees). A MANOVA was conducted to ex-
amine differences between groups in psychosocial variables. Results indicated that husbands who did not use substances as a means of coping reported lower levels of depression and higher levels of marital satisfaction, social support, optimism, and sat-
isfaction with life. No differences were found in perceived stress between groups. The use of substances as a form of coping was correlated with other problematic coping styles, including confrontive coping and accepting responsibility. These findings highlight the importance of adaptive coping strategies for overall well-being in this population, suggesting possible targets for intervention.

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UNMITIGATED COMMUNION, UNMITIGATED AGENCY, MARITAL SATISFACTION, AND WELL-BEING

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Previous research has determined that unmitigated communion (UC) is associ-
ated with an intrusive, overly nurturing, and controlling interpersonal style and unmitigated agency (UA) is associated with a hostile, cynical, and self-absorbed interpersonal style. Numerous studies have linked UC and UA to health and health behaviors (Helgeson, 1994; Fritz, 2000; Fritz, Nagurney, & Helgeson, 2001). Physical health has also been linked to marital adjustment. The present study examines correlates of marital satisfaction and quality using Helgeson’s (1994) model of UC and UA and well-being. Two hundred, middle age and older, couples completed questionnaires assessing UC, UA, depressive symp-
toms, personality facets, marital satisfaction, and marital quality. Correlation and regression analyses were used to examine the relationships between the variables. UA was associated with low marital satisfaction, low reports of mar-
tial support, and high reports of marital conflict. Husbands’ report of high marital support was associated with wives’ report of UC. Wives’ report of depressive symptoms was associated with husbands’ report of UC, while husbands’ report of depressive symptoms was associated with their own report of UA. UC and UA are linked to poor marital functioning and low marital satisfaction. Furthermore, the link between UC and UA and marital functioning intensifies the connection between the constructs and low well-being, poor health, and poor health behaviors.

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INTERACTION BETWEEN NONDIRECTIVE AND DIRECTIVE SUPPORT ON SUPPORT SATISFACTION

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Satisfaction with social support is often the best predictor of support’s impacts. This study examined the influence of Nondirective (cooperating without “taking over”, accepting feelings and choices) and Directive support (taking control, prescribing “correct” feelings and choices) on support satisfaction. Previous research has shown that Nondirective support tends to be differentially associated with better disease management and quality of life. Sixty-five undergraduates (51% male; 68.8% Caucasian) aged 18 to 27 (M = 20.1) completed measures assessing Nondirective support, Directive support, and support satisfaction following a stressful event. When controlling for Directive support, Nondirective support was positively associated with support satisfaction (partial correlation = .721; p < .001). No relationship was found between Directive support and support satisfaction. Splitting Nondirective and Directive support at their medians, 2 x 2 ANOVA (high/low Directive X high/low Nondirective) found a main effect on satisfaction for Nondirective Support (p < .001). Participants with high Nondirective support reported higher support satisfaction (M = 6.96 on an eight point scale) than participants with low Nondirective support (M = 4.90). Consistent with the non-significant partial correlation noted above, no main effect was found for Directive support. In a significant interaction between Nondirective and Directive support (p = .01), the lowest levels of support satisfaction were found in individuals with high Directive and low Nondirective support (M = 4.38). Support satisfaction is most sensitive to reported Nondirective support but high Directive support in the absence of Nondirective support may lead to especially low satisfaction with support.

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PREDICTORS OF FAMILY CONSENT FOR CADAVERIC ORGAN DONATION

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As cadaveric organ donation is such an infrequent event, efforts to gather data about demographic and process characteristics of the family consent process are essential. This study evaluated potential predictors of family consent for cadaveric organ donation in a large Southeastern U.S. sample. Data were collected by 16 organ procurement organizations between April 2000 and September 2002. Organ procurement coordinators (n=245) assessed each family’s (n=3438) stage of readiness to consent to donation when first interacting with them. Descriptive information was also gathered about each family approach. Families were primarily represented by females (60.4%) of different ethnicity (66.9% White, 29.3% Black, 3.3% Hispanic). Overall, 2269 (66%) of the families consented to donation. Hypotheses and univariate tests identified variables included in a stepwise logistic regression. Regarding demographic factors, families were more likely to consent to donation if: 1) they were White (OR=2.3) or Hispanic (OR=1.7) versus African American and 2) the deceased was under 25 years of age (OR=2.4). Regarding process variables, families were more likely to consent if: 1) a donation specialist was first to mention organ donation (OR=1.8) versus other hospital staff, 2) the primary decision maker was next of kin (OR=1.6), 3) the families were in the Action (OR=11.9), Preparation (OR=6.1) and Contemplation (OR=4.1) stages for donation versus Precontemplation, and 4) the wishes of the deceased were pro donation (OR=2.96). These results highlight a need to match an approach for donation consent to a family’s readiness and to tailor to key demographic variables.

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THE FORGIVING PERSONALITY: PREDICTING A LIFE WELL-LIVED

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Forgiveness, as a personality trait, is associated with enhanced psychological functioning and interpersonal relationships. Forgiveness is proposed to operate by reducing negative emotions and by improving relationships. Recently, research has mushroomed in the development of instruments to assess forgiveness and to examine its intrapersonal and interpersonal associations. At the same time, thoughtful reflections upon positive health (Ryff and Singer, 1998) have concluded that successful aging is defined primarily by having a purpose in life and quality connections to others and secondarily, by possessing self-regard and mastery. These outcomes, along with assessments of spiritual well-being, healthy behaviors, stress, and empathy have been examined in two groups of older adults (50-95 years of age, X=63.4); those high (n=205) and low (n=199) in the forgiving personality, based on a median split of IFP scores (median=133.5). On five out of six scales of psychological functioning, highly forgiving adults showed enhanced positive health: environmental mastery (p<.002), personal relations with others (p<.0001), purpose in life (p<.001), personal growth (p<.0001), and self-acceptance (p<.01). They also reported better health behaviors (p<.0001), and greater spiritual well-being, both religious and existential (p<.0001). They pray more often (p<.0001) and go to church more often (p<.0001). They also have less depression (p<.04), better subjective well-being (p<.005) and less stress (p<.02). In a path analysis, with health as the predicted variable, forgiving personality led indirectly to better health, through its impact on personal relations with others (.46) and healthy behaviors (.18). Trait forgiveness is moderately correlated with age (r=.19, p<.0001); in this case, forgiveness may be an adaptive personality trait linked to both enhanced intrapsychic and interpersonal adjustment.

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FORGIVENESS, RUMINATION, AND HEALTH

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While forgiveness has been the focus of philosophical and theological explorations, psychologists have recently extended it into the sphere of physical and psychological health. However, this area is limited with few studies examining the relationship between forgiveness and physical health (including physiological reactivity). In addition, few researchers have examined the relationship between forgiveness and rumination, as well as the relationship between these factors and measures of cardiovascular and endocrine functioning in response to a betrayal interview. Participants were interviewed about a time when they had felt betrayed or hurt by one of their parents. Blood pressure was assessed throughout the interview, and saliva samples were obtained for cortisol measurement. Both measures of forgiveness were related to rumination (p<.05). One measure of state forgiveness was associated with mean arterial pressure change from baseline to betrayal interview (p<.05). Both of the state forgiveness measures were related to cortisol reactivity (p<.05); higher forgiveness was associated with a greater decline in cortisol levels after the betrayal interview in relation to the baseline levels. In addition, regression analyses predicting forgiveness found that 63% of the variance was explained by the presence of an apology, intentionality, severity of the offense, and rumination (3%). This provides further evidence that forgiveness may play a role in physical health, as well as indicating factors, especially rumination, that may contribute to forgiveness.

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AMPUTATORY BLOOD PRESSURE IN ADULTHOOD IS PREDICTED BY NEGATIVE AFFECT, AVOIDANT COPING, AND CHILDHOOD ABUSE

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Although laboratory studies report associations between childhood abuse and physiological and psychological functioning in adulthood, the effects of childhood abuse on daily functioning in naturalistic settings are not well understood. It was predicted that childhood emotional abuse would influence ambulatory blood pressure (ABP) through its effects on coping and affect. Undergraduate students (N=121; 77 female, 44 male; mean age = 19.6; 77% Caucasian, 11% Hispanic, 5% Asian, 7% other) from divorced (n=40), bereaved (n=42), or married intact (n=39) families completed questionnaire measures of abuse history, coping responses, and dimensions of current negative affectivity (anxiety, depression, hostility, negative affect). ABP and mood ratings were collected at 30-min intervals during waking hours for a 24-hr period. Structural equation modeling revealed a significant pathway in which participants from divorced and bereaved families reported more emotional abuse, emotional abuse predicted greater use of avoidant coping, and avoidant coping was positively associated with negative affectivity (all paths significant at p < .01). Mixed models were then formed to test the effects of avoidant coping and negative affectivity on daily mood ratings and ABP (all p's < .001). Avoidant coping was associated with more negative daily moods, and this relation was mediated by negative affectivity. Negative daily moods predicted increased ABP readings. Results suggest 1) childhood abuse influences negative affectivity and daily moods in early adulthood through avoidant coping, and 2) negative mood is associated with increased ABP in naturalistic settings. Findings suggest that the negative impact of childhood abuse on long-term physiological and psychological functioning in adulthood extends to naturalistic settings.

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POST-ACS APPRAISALS AND COPING PREDICT SUBSEQUENT HEALTH-RELATED QUALITY OF LIFE

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Research indicates that appraisals and coping activities are related to better adjustment following acute coronary syndrome (ACS). For example, several studies have linked emotion-focused coping with subsequent distress and depression. However, little is known about relations of appraisals and coping with health-related quality of life following ACS. The present study examined the relations among the appraisals and coping of 49 myocardial infarction patients assessed in the hospital shortly after their ACS and their health-related quality of life one month later. Participants were 25 men and 24 women, mean age of 57 (range 40-80), race reported as 92% White, 4% African-American, 2% Asian and 2% Hispanic. Results indicated that participants’ appraisals and coping following their ACS influenced various aspects of their subsequent quality of life. In particular, appraisals of the uncontrollability of their recovery process were related to poorer physical and social functioning and higher levels of pain, while appraisals of potential benefits from the ACS were related to better physical functioning. Behavioral disengagement was related to poorer physical functioning and more pain but also to better emotional and physical role functioning. Re- liance on emotional social support was unrelated to health, but instrumental social support was related to higher levels of pain. Also related to higher levels of pain were active coping and positive reinterpretation. Religious coping was related to poorer mental health following the ACS. Results suggest that appraisal and coping processes should be attended to as potential determinants of physical as well as psychological well-being.

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WAYS OF COPING DURING ACUTE BEREAVEMENT

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Purpose: To evaluate the psychometric properties of the Ways of Coping Questionnaire (WOCQ) and its associations with select mental health outcomes to enhance our understanding of individuals coping during bereavement.

Methods: Analyses were performed on baseline data from survivors (N=60) within one month of a death by suicide of a family member. Reliability was examined using Cronbach’s alpha and standard error of measurement (SEM). Validity was examined with relationship to the related constructs of depression, anxiety, complicated grief, quality of life, and social support.

Results: Cronbach’s alpha ranged from .70 to .86 for measurement error. Convergent validity was supported with the WOCQ subscales of seeking social support and escape-avoidance with depression (r=.69; p<.005), anxiety (r=.58; p<.005), and mental health quality of life (r=.34; p=.045) and r=.50; p<.001, respectively). Males utilized confrontive coping and planful problem solving more than females. Females utilized seeking social support and positive reappraisal significantly more than males (p<.05).

Conclusions and Implications: The WOCQ is a reliable and valid instrument in the present sample. Males and females utilize different coping styles during the acute phase of bereavement. The WOCQ subscales, distancing and accepting responsibility, are correlated with a number of social support variables. Interventions to enhance positive coping strategies will be presented and implications regarding social support networks will be discussed.

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RELATIONSHIP OF AVOIDANT AND APPROACH COPING TO ANXIETY AND DEPRESSION IN PATIENTS UNDERGOING BONE MARROW TRANSPLANTATION

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Research suggests there is considerable variability in the degree to which patients experience psychological distress before and after bone marrow transplantation (BMT). The purpose of the study was to examine whether differences in coping predicted differences in anxiety and depression before and after BMT. Based on theory and prior research it was hypothesized that approach forms of coping would be associated with less distress and avoidance forms of coping would be associated with greater distress. Participants included 209 patients (59% male, mean age 51) who underwent autologous (80%), allogeneic (16%), or matched unrelated donor (3%) transplants. Patients were assessed before transplant and again six months after transplant for depression (Center for Epidemiologic Studies Depression Scale) and anxiety (State-Trait Anxiety Inventory). Before transplant patients were also administered a measure of coping (Coping Responses Inventory), which consisted of four approach subscales (Logical Analysis, Positive Reappraisal, Seeking Guidance/Support, Problem Solving) and four avoidance subscales (Cognitive Avoidance, Acceptance/Resignation, Seeking Alternative Rewards, Emotional Discharge). Depression and anxiety prior to BMT were both positively correlated with Cognitive Avoidance and Acceptance/Resignation (r = .24 to .32, p < .0005). Depression after BMT was positively correlated with Logical Analysis, Seeking Guidance/Support, and Acceptance/Resignation (r = .13 to .16, p < .05). Anxiety after BMT was positively correlated with Acceptance/Resignation (r = .18, p < .01). In terms of clinical implications, these findings show the importance of identifying and intervening with BMT patients who use cognitive avoidance and acceptance/resignation as coping strategies as they place these patients at increased risk for anxiety and depression.

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THE STRUCTURE OF FATALISM AND ITS ASSOCIATION WITH HEALTH BEHAVIORS AND OUTCOMES

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Fatalism has been shown to predict several health behaviors, but researchers often find inconsistent results for the same behaviors across studies. This may be partially attributable to the diversity of fatalism measures that have been used in previous studies. A review of the literature revealed 51 different scales, often with heterogeneous content. We administered 267 items from these scales to a sample of 564 participants (65.2% female, mean age 19.7) years. Most of our sample was Hispanic (81.5%). We analyzed responses using principal components exploratory factor analysis with promax rotation. Five factors were extracted, reflecting Fatalism, Helplessness, Externality, Luck, and God. Nine item subscales representing each of the five factors were constructed to explore possible relationships with health behavior information. Scale reliabilities ranged from \( \xi = .81-.94 \), with one-week test-retest correlations ranging from .70-.88. Factors predicted self-reported health behaviors differently. For example, frequency of alcohol use was positively correlated with the Luck scale (r = .118, p = .015), but negatively correlated with the God scale (r = -.098, p = .044). Depressive symptoms were positively correlated with the helplessness scale (r = .410, p < .001) and the total scale (r = .100, p = .039), but negatively correlated with the God scale (r = -.121, p = .013). Other scales predicted condom use and reckless driving. This study is an important first step in understanding and measuring the complexity of the fatalism construct and how it relates to health behaviors and outcomes.

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COGNITIVE COPING STRATEGIES OF PATIENTS WITH CHRONIC NONMALIGNANT PAIN: IMPLICATIONS FOR PROVIDING BEHAVIORAL SUPPORT

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Patients (n=72) with chronic nonmalignant pain participated in a 1.5 hour group discussion. Groups were audio taped and themes coded from written transcripts. Patients were asked about their experiences obtaining treatment for their pain, what types of treatments were helpful or not, and suggestions for improving treatment of chronic pain. The majority of patients had pain for more than 3 years and most reported low back pain (68.1%) from work injury or accidents. Approximately 2/3 were female and 29.2% Spanish speaking Latinos. Over 72% reported their health as poor or fair and 93% reported high current pain levels. Patients reported extremely frustrating and debilitating encounters with healthcare providers, and overall, very little relief of their chronic pain. However, the majority also reported a range of positive coping strategies that allowed them to continue to work, engage in community activities, or participate in family life. Positive coping strategies including reframing “at least I don’t have cancer”; self advocacy and willingness to continue to try new treatments “you just have to try everything”; distraction and engagement in social and community activities “I exercise and I always hurt more after, but for that time I can just forget about the pain”. Patients who reported actively seeking a ‘cure’ as a coping strategy expressed frustration as to why the medical community couldn’t help them, complained more about limitations, and expressed more distress.

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THE EFFECTS OF SELF-EFFICACY ON PAIN IN PATIENTS WITH SICKLE CELL DISEASE (SCD)

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The effects of self-efficacy on chronic pain have been explored in several recent studies. Self-efficacy is most often defined as a reciprocal relationship between an individual and the environment that generates a sense of input into the outcome of an event / a sense of personal control in a situation with the ability to minimize, reduce, or tolerate the potential effects of the trauma. In the current study, we evaluated the effects of self-efficacy on chronic pain intensity, duration and frequency in fifty patients with SCD. Using median-split, we divided patients into “higher” (>83) and “lower” (<83) categories. Using Analysis of Variance (ANOVA) to analyze differences, we found that self-efficacy exerted significant effects on the affective reaction to pain (F (1, 47)=24, p=0.03, as measured by the SF-MPQ, and on overall pain intensity as measured with SF-MPQ, PPI, f (1, 47)=8.74, p=0.001. There were no effects noted on the sensory or global measures of pain (VAS) as indexed by SF-MPQ. Pain duration and frequency were also not significantly affected. The authors conclude that psychological factors such as self-efficacy may be important targets for clinical intervention in patient’s maladaptive affective reactions to chronic pain or difficult-to-manage overall pain intensity.

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THE EFFECTS OF PARENTAL ALCOHOL OR DRUG ABUSE ON REPORTS OF CHRONIC PAIN AND COPING IN PATIENTS WITH SICKLE CELL DISEASE (SCD)

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There are increasing interests, from a genetic and a social learning perspective, on understanding the role of parental factors on adult health behaviors and health outcomes. Our review revealed that there are no studies, to date, that have evaluated the effects of parental factors on reports of chronic pain and coping in patients with Sickle Cell Disease (SCD). We explored the effects of parental alcohol and drug abuse on reports of the sensory, affective, and summary indices of pain in fifty adult patients, mean age 38.93 (13.51), with SCD.

Twenty-eight percent of patients reported that their parents were alcohol or drug abusers. Patients whose parents were characterized as alcohol or drug abusers reported greater sensory (p=.02), affective (p=.01), and summary (VAS: p=.02) indices of pain as compared to their chronic pain counterparts whose parents were not characterized as substance abusers. Patients did not differ in their magnitude of active coping as measured by the John Henryism scale. We propose a genetic and social learning theory explanation of our findings and suggests a need for additional prospective research to explore biological and social factors that influence the interpretation, experience, and reporting of chronic pains.

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ANGER AND CHRONIC LOW BACK PAIN: EVIDENCE FOR SYMPTOM-SPECIFIC REACTIVITY

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Anger is an important factor in the experience of chronic pain. However, the mechanisms by which anger may worsen chronic pain are unclear. According to a “symptom-specific” reactivity model, the arousal of anger may affect pain through increased muscle tension near the site of injury. For chronic low back pain (CLBP) patients, anger may induce greater tension in muscles of the lower back (lower paraspinals; LP)—symptom-specific reactivity—than the arousal of other negative emotions, whereas such differences would not emerge in muscles distant from the lower back (trapezius). 90 CLBP patients engaged in 5-min Anger Recall (ARI) and 5-min Sadness Recall (SRI) interviews (counterbalanced) while LP and trapezius EMG, SBP, DBP and HR were recorded. Within-subject ANOVAs showed that the ARI produced greater self-reported anger than the SRI (p<.01), whereas patients reported greater sadness during the SRI (p<.01). The ARI also produced greater LP muscle tension than SRI (4.9 vs 4.6 microvolts, respectively; F=7.04, p<.009), but trapezius tension differences were nonsignificant (5.1 vs 4.9 microvolts; F=1.9, ns). SBP and DBP increases were also greater for the ARI than SRI (F's < 4.0, p's<.05), whereas differences for HR were nonsignificant (F=1.0, ns). Results support the symptom-specificity model of anger. Tension in LP muscles—near the site of injury for CLBP patients—was increased more by anger induction than sadness induction, whereas this difference did not emerge for trapezius tension. Anger may be a particularly problematic emotion for CLBP patients, and result in increased pain due to exaggerated LP reactivity.

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THE EFFECT OF BARRIER UNDERESTIMATION IN THE RELATIONSHIP BETWEEN INTENTION AND BEHAVIOR CHANGE

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Why do intentions not always correspond to behavior? We hypothesized that one reason is that at the time of forming intentions, people underestimate the influence that barriers to action will have on their future behavior. We tested this prediction in the domain of weight management and exercise using a longitudinal study. University employees (N = 385) reported their current weight, exercise behavior, intentions to change weight, and intentions to change their exercise routine. They also predicted the impact of several barriers on behavior change. One year later, they again reported their current weight, exercise behavior and also gave retrospective assessments of the impact of these same barriers. Our dependent variable was the degree to which behavior met or exceeded intentions to lose weight or exercise more. Our independent variable was the extent to which the impact of barriers was underestimated at time 1, relative to time 2. The intention-behavior match variable was weakly but significantly correlated with underestimating the effect of barriers to action (exercise r = -.20; weight management r = -.15, p<.05). That is, underestimating the impact of barriers was associated with greater discrepancy between intention and behavior. These results help to elucidate factors that contribute to the failure of health behavior change.

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DISINHIBITION PREDICTS HEALTH BEHAVIORS

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The predictive validity of a new factor-analytically derived measure of disinhibition was compared to current personality measures including the NEO PI-R in predicting health behaviors. Participants were 240 undergraduate psychology students completing questionnaires on personality and health behaviors. Indices of health behaviors were created from the Personal Lifestyles Questionnaire (PLQ; Muhlenkamp & Brown, 1983), including a 4-item index of exercise (alpha = .67), a 3-item index of alcohol consumption (alpha = .48), and a 2-item index of smoking (alpha = .64). Using hierarchical regression analysis, the NEO traits (Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness) were entered and found to be a significant predictor of exercise (R-square = .183, p < .001). Next, the new 5-factor measure of disinhibition factor scores were entered into the model. When controlling for the NEO's contributions, the model with the disinhibition measure resulted in an R-square of .251 (p < .001, R-square change of .068). In the next analysis, the NEO traits were again entered in the first block. This model was found to be a significant predictor of drinking behaviors (R-square = .213, p < .001). The disinhibition factor scores were entered next and were found to significantly predict drinking behaviors when controlling for the effects of the NEO traits (R-square = .301, p < .001, R-square change of .073). Both personality measures failed to predict smoking, eating, safety, and social support behaviors or caffeine intake. The factors of the disinhibition measure will be discussed in terms of their additive value to our conceptualizations of personality traits.

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THE RELATIONSHIP BETWEEN TIME PERSPECTIVE AND HIGH-RISK SEXUAL BEHAVIOR

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Individuals use the past, present and future to varying degrees during decision making. This construct, called time perspective, has been shown to be predictive of a wide range of behaviors. For example, those living in the here-and-now may not anticipate the future adverse health impacts of certain sexual choices. This study examined the relationship between time perspective and high-risk sexual behaviors, as well as the perceived risk of HIV infection to self and others. Using the Zimbardo Time Perspective Inventory, a Sexual Behavior Survey and a Perceived Risk Inventory, 92 individuals were surveyed. Results indicated that men who have sex with men had significantly lower past positive time perspective (X = 3.37) than their heterosexual counterparts (X = 3.71); t(89) = 2.698, p < .05. A negative correlation was observed between past positive time perspective and high-risk sexual behavior (r = -.196, p < .05). Past positive time perspective stresses a nostalgic view of one's past, with strong traditions and maintenance of relationships with family and friends. Close ties with family and friends may help to establish norms that are at odds with high-risk sexual behavior. Further, this study revealed that the perception of risk of HIV infection to the subject and to those in the subject's social network were positively correlated with high-risk sexual behavior (r = .356, p < .001; r = .212, p < .05) and number of sexual partners (r = .366, p < .001; r = .220, p < .05).

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A CONTEXTUAL ANALYSIS OF ACTIVE COPING AMONG AFRICAN AMERICAN WOMEN: CONSIDERATIONS FOR PERSISTENCE AND STRENGTH IN IMPLICATIONS FOR HYPERTENSION RISKS

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This paper explores the association between John Henryism, age, and education for African American women. The overall goal of the study was to identify racialized and gendered stressors which contribute to adverse health outcomes for African American women.

Qualitative and quantitative data was collected to capture and measure identity stressors linked to race and gender in a sample of 302 African American women. The John Henryism Scale for Active Coping was included in a battery of measures to validate the JHP Contextualized Stress Measure.

College educated and non-college educated women both scored high on John Henryism indicating little class differences, contrary to previous research. However, age differences occurred, where older women scored higher on John Henryism than younger women. Themes of being strong and persisting despite obstacles prevailed among the women as well as themes of how other African American women were a source of support and inspiration to persevere and succeed.

Social roles and obligations as well as societal expectations and constraints contribute to high active coping among African American women. This study suggests that these themes transcend socioeconomic status and high active coping was more prevalent among older women. We conclude that psychological and social factors related to disparate rates of hypertension among African American women be examined within a contextual framework that includes age, race and gender.

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F-99 Meritorious Student Poster

GENDER DIFFERENCES IN ASSOCIATIONS BETWEEN SUBMISSION AND SALIVARY CORTISOL

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Although associations between social dominance and increased risk for cardiovascular disease (CVD) have been found for men, studies including women have had mixed findings. Social dominance, then, may not be as clear of a marker for CVD risk for women as for men. Submission and subordinate social rank, however, have been associated with both poorer cardiovascular health and elevated cortisol levels in female nonhuman primates, and preliminary evidence suggests that submission may have relevance for women's health also. For example, trait submission in women has been associated with irregular menstrual functioning, which in turn is associated with elevated CVD risk. Drawing from these lines of research, the present study examined associations among gender, submission, and salivary cortisol levels in response to an initial social encounter with an opposite-sex participant. Healthy African American and European American men and women (N=105) ages 18-45 completed a trait measure of submission/anger-in and provided saliva samples following an initial social encounter, when first glance impressions of relative social rank and status are often established. Hierarchical linear regression indicated a significant gender x submission interaction for salivary cortisol levels, F(5,99) = 4.44, p = .001; t(104) = 2.00, p = .049. Submission was positively related to salivary cortisol for women (B = .00951; p = .028) but not for men (B = -.00254; p = .56). These results are consistent with previous findings in nonhuman primates and point to submission as a potential biobehavioral marker that may have important implications for health, particularly for women. Supported by NHLBI grant R29HL58528 awarded to the second author.

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RUMINATION, HOSTILITY, STRESS, & HEALTH AMONG URBAN INDIAN COLLEGE STUDENTS


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Rumination impacts on psychological distress and poor physical health outcomes. Although rumination has been studied extensively in Western samples, few studies have investigated the correlates of rumination among international samples, specifically an Indian population. The aim of the current study was to determine the association between rumination, hostility, stress, and health. Participants were 188 undergraduates (Mean Age=18.9; 51% Females; 50.5% Hindu, 34.6% Christian, 5.3% Jain, 3.7% Muslim, 2.1% Parsee, and 1.1% other) enrolled in St. Xavier’s College in Mumbai, India. Participants completed a self-report questionnaire assessing their tendency to ruminate as well as measures of hostility (Cook Medley Hostility Scale), stress (Perceived Stress Scale), and physical symptoms (Cohen-Haberman Inventory of Physical Symptoms). Rumination was positively correlated with hostility (ρ=0.02), stress (ρ=0.01), and physical symptoms (ρ=0.05). Rumination mediated the relationship between hostility and stress. The findings suggest that, similar to individuals from Western cultures, Indian individuals who ruminate are more likely to experience poor physical health as well as increased levels of stress and hostility. Also, the impact of hostility on stress is enhanced by rumination.

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RACISM, APPRAISALS, AND COPING

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Ethnicity-related maltreatment (racism) is a significant stressor for many Americans and may contribute to racial disparities in health. This study examines mechanisms linking racism to health by testing the hypothesis that exposure to racism influences individuals’ appraisals of and coping responses to new episodes of maltreatment. Participants included 68 men and 138 women of whom 80% were Black with a mean age of 39 years. Lifetime exposure to racism was assessed with the Perceived Ethnic Discrimination Scale-Community Version (PEDQ-CV). Appraisals of racism were assessed with 12 affect items drawn from Folkman and Lazarus (1984), and anger-coping style was assessed with a modified version of the Spielberger Anger-Expression scale, yielding three subscales: Anger-In (AI), Anger-Out (AO), and Anger-Calm (AC). Cook Medley Cynical Hostility served as a control variable. Racism (PEDQ-CV) was correlated with appraisals of ethnicity-related maltreatment as threatening (ρ=-0.45, p<0.001) and harmful (ρ=0.41, p<0.001) and with the use of AI (ρ=0.33, p<0.001) and AO (ρ=0.33, p<0.001) anger-coping styles. Hierarchical multiple regression analyses indicated that associations of PEDQ-CV to both AI and AO were partly mediated by perceptions of threat and harm. Associations persisted despite controlling for hostility. The more participants had been exposed to racism, the more likely they were to view new situations as threatening or harmful and to sharply express (AO) or suppress (AI) their anger. These data confirm our previous findings and have implications for efforts to reduce the impact of racism.

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COGNITIVE SELF-STATEMENTS MEDIATE THE RELATIONSHIP BETWEEN ANGER EXPRESSION AND CARDIOVASCULAR RESPONSIVITY TO STRESS PROVOCATION

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Research has indicated that cognitive self-statements (indicative of rumination) play a defining role in the relationship between anger expression and cardiovascular reactivity. The current study assessed the relationship between anger expression, cardiovascular responsivity to stress provocation, and cognitive self-statements. Participants were 68 normotensive students and staff members (mean age=34.2; 58 females, 10 males; 66.2% Caucasian, 16.2% Asian, 8.8% African American, 5.9% Hispanic, and 3% other) of a New York City medical center. Blood pressure and heart rate were measured at 2-minute intervals during a 10-minute baseline period and a 20-minute recovery period and at 1-minute intervals during a 4-minute anger recall task and a serial subtraction task without harassment. Results indicated that expressing anger was positively correlated with elevated blood pressure (BP) and heart rate (HR) at baseline (HR=27, p<0.02; DBP=34, p<0.004), task (DBP=29, p<0.02), and recovery (HR=24, p<0.04, DBP=34, p<0.004). Cognitive self-statements indicative of a desire to seek justice were associated with lower BP and HR at baseline (SBP=28, p<0.02; DBP=25, p<0.04), task (SBP=24, p<0.05; DBP=26, p<0.03), and recovery (SBP=25, p<0.04). Relationship between anger expression and cardiovascular responding was mediated by cognitive coping self-statements. Conclusion: Cognitive self-statements, indicative of coping strategies such as seeking justice, may attenuate the negative effects of anger expression on cardiovascular functioning.

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DEPRESSION, STRESS, AND DISCLOSURE’S RELATIONSHIP TO NEGATIVE SELF-IMAGE IN PEOPLE LIVING WITH HIV/AIDS

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People living with HIV/AIDS frequently run a negative self-image due to a combination of factors. However, little research examines the relationship between disclosure and self-image. This study examined the association between depression (CES-D), stress (Perceived Stress Scale), disclosure of HIV/AIDS status to immediate family or a best friend (Decision to Disclose) and negative self-image (HIV Stigma Scale).

HIV+ adults (N=230; 52% male) were recruited from community AIDS service organizations in the Dallas/Fort Worth area. The majority of our sample (51%) were African-American, with 29% European-American, 11% Latino and 9% Other. Additionally, 54% reported they were heterosexual, 30% gay and 16% bisexual. Seventy percent reported household incomes of less than $10,000 a year. Seventy-five percent of the subjects reported that they were on HIV medications. Ninety percent of participants reported that they had disclosed their HIV status to either a family member or a best friend.

After controlling for demographics and medical variables, a hierarchical multiple regression analysis found only household income to significantly contribute to the model (t=-2.07, p<0.05). Our model explained 22% of the variance in negative self-image (Adjusted R Squared = .22, F(1,229)=6.44, p<0.001). Non-disclosure was negatively and significantly associated with negative self-image (t=-2.09, p<0.05), whereas higher depression (t=2.90, p<0.01), and total perceived stress (t=2.97, p<0.01) were positively and significantly associated with an increased negative self-image. Our findings suggest that interventions that include a component on disclosure and target depressive symptoms and stress reduction, may improve self-image for HIV+ adults. Additional research that demonstrates the benefits of positive self-image to health in this community is needed.

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GENDER, SEX BEHAVIOR, SEXUAL DEPRESSION AND SUICIDAL IDEATION AMONG UNIVERSITY UNDERGRADUATES IN SRI LANKA

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It has been reported that Sri Lanka has one of the highest youth suicide rates in the world. Epidemiological data related to the mental health of young adults in the world has been limited in this country for a long time. The objective of the current study is to examine the prevalence of depression, stress, and suicidal ideation among young university students in Sri Lanka. The study was conducted among 728 randomly selected undergraduates from three universities in Sri Lanka. The sample was stratified by gender, year of study and faculty.

The prevalence rate of depression was 10.1% among the study population. The prevalence rate was 10.3% among females and 9.9% among males. The prevalence rate of stress was 76.0% among the study population. The prevalence rate was 76.8% among females and 75.2% among males. The prevalence rate of suicidal ideation was 16.7% among the study population. The prevalence rate was 16.6% among females and 16.8% among males.

In both genders, there was a significant positive correlation between depression and stress. There was a significant positive correlation between depression and suicidal ideation. There was a significant positive correlation between stress and suicidal ideation.

FORTY PERCENT OR MORE OF THE STUDENTS REPORTED THAT THEY HAD DISCUSSIONS ABOUT SUICIDE WITH THEIR FAMILIES OR FRIENDS.

The findings of the current study suggest that interventions aimed at reducing depression, stress and suicidal ideation among university undergraduates in Sri Lanka would be beneficial. Further research is needed to evaluate the effectiveness of such interventions.

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DEVELOPMENTAL HETEROGENEITY IN ADOLESCENT DEPRESSIVE SYMPTOMS: ASSOCIATIONS WITH SMOKING BEHAVIOR

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Previous research has indicated an association between smoking and depression in adolescents, although the nature of the relationship is controversial. We sought to better understand this relationship in a prospective study by investigating whether there are subpopulations of adolescents with different relationships between smoking and depressive symptoms. Our sample was 925 adolescents followed from 9th to 12th grade. We used General Growth Mixture Modeling (GGMM) as our method because GGMM allowed identification and characterization of depressive symptoms trajectories. We identified three trajectories: high, medium, and low depressive symptoms. For adolescents with high symptoms, 9th grade (baseline) smoking was associated with overall symptom deceleration. For adolescents with moderate symptoms, baseline smoking was associated with overall symptom acceleration. Baseline smoking was not associated with change of adolescents with low symptoms, nor was it associated with baseline depressive symptoms in any trajectory. Compared to adolescents with low symptoms, adolescents with high symptoms were 33% less likely to have high grades at baseline, but 24% more likely to participate in extracurricular activity at baseline. Compared to adolescents with moderate symptoms, adolescents with high symptoms were 36% more likely use alcohol at baseline, and 35% more likely to participate in extracurricular activity at baseline. However, they were 20% less likely to be physically active at baseline. Adolescents with moderate and low symptoms did not differ on any baseline characteristics. These results suggest the controversial findings concerning the relationship between adolescent smoking and depression may result from the presence of unobserved subpopulations with different relationships between smoking and depressive symptoms.

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INFLUENCE OF STRESS AND DEPRESSION ON CHOLESTEROL IN MIDDLE-AGED ADULTS

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Prior studies have indicated that lowering cholesterol through either medication or diet may increase depressed mood. Data also indicate higher rates of depression among women with naturally low cholesterol levels. This study was designed to examine the influence of depressive symptoms on stress-related changes in cholesterol among 88 healthy, middle-aged adults (mean age 52 ± 8 years; range: 40-61 years; 40% women). Participants completed the Center for Epidemiological Studies Depression Inventory (CES-D) prior to completing a laboratory assessment of cardiovascular reactivity (speech and serial subtraction stressor). Blood samples were collected during each stage of the reactivity protocol to document changes in cholesterol levels, and lipid levels were corrected for changes in plasma volume. Participants were categorized as depressed (CES-D ≥ 16) or non-depressed, and data were analyzed with repeated measures analysis of variance with time as a within subject variable and depression status as a between subjects variable. Results indicated a significant time main effect (p < .001) reflecting that cholesterol levels increased significantly from baseline to stress and decreased significantly between stress and recovery for all participants. In addition, depressed individuals tended to have lower cholesterol levels throughout the reactivity protocol (p = .07), but no interaction was observed. Thus, cholesterol levels tend to be lower among depressed individuals, and stress-associated increases in cholesterol occurred regardless of depression status.

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RISK FACTORS FOR VASCULAR DEMENTIA

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Dementia is a devastating disorder that commonly affects people over the age of 65. Alzheimer’s disease and vascular dementia are the most common forms of dementia. A number of studies have implicated cardiovascular risks as important factors in the development of dementia. These risks include high-risk behaviors such as smoking and risks related at least partially to health behaviors such as diet and exercise. This study examines a group of cardiovascular risk factors, as defined by the Framingham Study, to ascertain if they are predictors of dementia. A retrospective chart review of 526 consecutive patients seen in a geriatric medicine clinic produced a sample of 226 individuals diagnosed with dementia and 300 individuals without a dementia diagnosis. Relative risk ratio results indicate that a history of hypertension (RRR = 1.80, p = .009) and a history of hypercholesterolemia (RRR = 1.85, p = .016) are significant predictors of Alzheimer’s disease. A history of tobacco use (RRR = 2.18, p = .01) is a significant predictor of vascular dementia. Stepwise regression analyses indicate that hypercholesterolemia is an independent predictor of dementia (b = -.113, p = .009) and hypercholesterolemia (b = -.104, p = .018) and hypertension (b = -.094, p = .031) clustered together have a predictive effect. These results are discussed in terms of the importance of specific health behaviors in the development and possible prevention of dementia.

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NEED TO KNOW: A NEW SCALE ASSESSING DISPOSITIONAL NEED TO SEEK HEALTH INFORMATION

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The Elaboration Likelihood Model posits attitude change is contingent upon persuasive arguments, peripheral cues, and dispositional need for effortful cognitive processing. Unclear is the role of affect. The Parallel Process Model highlights the role of affect in health behavior and provides a framework for attitude change in the health context. Based on the Parallel Process Model, the Need to Know scale (NTK) was developed to assess cognitive (NTKCog) and affective (NTKAff) need for health information. Participants were women (n=314) and men (n=193) in a 9-year study of aging and health in older adults. Most were white (99%) and had completed college (75%). Average age was 72. Three studies were conducted. (1.) Factor analysis revealed two factors with eigenvalues>1 and loadings>-.7: NTKAff and NTKCog. Internal consistencies were acceptable (NTKAff: α=.6; NTKCog: α=.8). (2.) Six-month test-retest reliability was high (NTKAff: α=.8; NTKCog: α=.7). NTKAff was positively correlated with 5 anxiety and depression scales and negatively correlated with 2 information-seeking scales. NTKCog was negatively correlated with anxiety and depression scales and positively correlated with 2 information-seeking scales. (3.) NTK Aff was positively correlated with symptom reporting and limitations in activities of daily living (ADLs). NTKCog was positively correlated with colon cancer screening, information-seeking regarding genes, heart disease, and cancer. NTKCog was negatively correlated with limitations in ADLs and not reading about heart disease or cancer. NTK may assist in health message tailoring. Tailed health messages may lead to attitude change about health action, resulting in more appropriate action.

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TEMPORAL RELATIONSHIPS BETWEEN SOCIAL-COGNITIVE VARIABLES IN CARDIAC PATIENTS

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Considering the fatal nature of coronary artery disease (CAD) and documented benefits of physical activity (PA) for primary and secondary prevention, increased knowledge regarding the determinants of PA in cardiac patients is warranted. This study used social cognitive theory (SCT) to better understand PA in this population. Particularly, we aimed to determine the temporal relationships between 3 key SCT variables: task and barrier self-efficacy (SE) and outcome expectations (OE). To become physically active, one must believe that he/she is capable of doing the activity (task SE), but also of overcoming barriers that impede PA behavior (barrier SE). Therefore, task SE precedes, and may predict barrier SE, but no study has examined this relationship. OE, the belief that an outcome will occur in response to a behavior, may serve as behavior incentives. Participants (n = 489, 76% male, 95% Caucasian, M age = 61) with CAD completed questionnaires measuring the 3 SCT variables in relation to PA at hospital discharge and 2 months follow-up. Regressions analyses revealed that baseline measures of task and barrier SE predicted task SE at 2 months (p < .000); all 3 variables measured at baseline were significant predictors of barrier SE at 2 months (p < .04); and only OE at baseline predicted OE at 2 months (p = .000). The results indicate that barrier SE is influenced by task SE, greater OE are associated with more confidence to overcome barriers, and one’s confidence to do PA 2 months post-hospitalization was predicted by previous perceptions of SE, but not related to OE. These results are discussed in relation to SCT.

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PERSONALITY AND COGNITIVE FUNCTIONING: IMPEDING PERFORMANCE?

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Associations between personality and objective measures of cognitive function were examined in breast cancer patients (N = 160) six months after treatment completion. Women completed the NEO-FFI and a battery of neuropsychological tests. Results indicated that openness scores were significantly associated with better performance. This pattern emerged for four of five performance measures (r’s = .157 to .308). Specifically, women with higher openness scores performed better than counterparts on tasks requiring language comprehension and reasoning, visual memory, and processing speed. With regard to neuroticism, higher levels were significantly associated with poorer performance on tasks of memory and processing speed (r’s = -.192 to -.212), but not language skills or visual memory. In order to further understand the relationship between personality and performance, neuroticism and openness were entered into multiple regression analyses followed by their interaction term. Contrary to expectations that high neuroticism and low openness would predict significantly poorer performance, no significant interactions emerged. However, accounting for neuroticism appears to reduce the relationships between openness and visual memory performance to nonsignificance while the other relationships remained significant and essentially unchanged. With regard to neuroticism, accounting for openness had no appreciable effects on its relationships with performance. The current results suggest personality characteristics may influence performance during evaluation. More specifically, individuals less open to experiences may experience nervousness about testing or discomfort about the many novel tasks during such testing, thus obscuring actual levels cognitive functioning. Individuals higher in neuroticism may experience distress about perceived performance and subsequently perform below actual levels of functioning, particularly on tasks requiring memory and speed.

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PSYCHIATRIC SEVERITY IN INCARCERATED WOMEN WITH RECENT COMORBID ALCOHOL AND COCAINE USE

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There is a strong association between cocaine and alcohol use. In our study, 85% of the women sampled in a large urban jail who met criteria for cocaine dependence also met criteria for alcohol abuse or dependence. Each substance is associated with psychiatric problems, and patterns of distress have been identified for users of each. Research has been mixed on the relation of the combined use of cocaine and alcohol to psychiatric problems, however. We examine the relation of combined use of cocaine and alcohol (in the 30 days before jail) to psychiatric problems (BSI measured in jail), using profile analysis. Random samples of 469 women 18–44 years were drawn from inmates incarcerated 10–14 days. Half were Black, 26.9%; White non-Hispanic and 13.2%, Hispanic. Overall profile differences were found with the highest distress levels being associated with the high cocaine and high alcohol use group F(1,229)=10.55; p=.001. High cocaine was associated with greater distress across levels of alcohol use. For alcohol users, when cocaine frequency was low, profile differences were found F(1,253)=7.56; p=.006. When frequency of cocaine use was high, however, alcohol profile differences were not found. There is a moderating effect of cocaine on alcohol with alcohol use, indicating psychiatric distress differentially, depending on the frequency of cocaine use. We did not find such a modifying effect of alcohol on cocaine.

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DAY-TO-DAY ASSOCIATION BETWEEN BLOOD PRESSURE AND COGNITIVE PERFORMANCE IN OLDER ADULTS

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Previous studies have, in general, found that both hypertension and hypotension are related to poorer cognitive functioning in older adults. This relationship has usually been examined at a single occasion or at multiple occasions separated by a number of years. Given that blood pressure fluctuates daily, little is known about how short-term perturbations in blood pressure affect cognitive functioning. Consequently, the current study examined the extent to which day to day fluctuations in systolic blood pressure (SBP) are associated with concomitant cognitive performance. Data came from 36 community dwelling elders aged 60 and older (mean = 73; SD = 3.9), whose blood pressure and cognitive functioning were tested on 120 occasions (twice a day for 60 consecutive days) for a total of 4320 observations. Hierarchical linear modeling was used to examine the within and between person effects of blood pressure on reasoning, memory, and processing speed. Higher daily SBP was moderately associated with lower performance on a measure of reasoning skills (r(3982) = -1.79, p = .07) even after controlling for age, gender, and education. Furthermore, a significant interaction between average (calculated across the 1120 occasions) and daily SBP (r(3982) = -2.11, p = .03) indicated that performance on the reasoning task particularly suffered on occasions when blood pressure spiked for participants with already high average blood pressure. Results highlight the impact of transitory changes in blood pressure on cognitive functioning, as well as the potential need for interventions to focus not just on lowering blood pressure but also minimizing large fluctuations.

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EMOTIONAL SUPPRESSION, EXPRESSION, AND COGNITIVE PROCESSING: SELF-REPORT AND LINGUISTIC INDICATORS THAT PREDICT ADJUSTMENT IN CANCER

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For participants in cancer support groups, positive adjustment has been associated with lower levels of emotional suppression and greater expression of negative affect. We sought to evaluate the ability of self-report and behavioral indicators of emotional expression and cognitive processing to predict adjustment in a sample of 73 cancer survivors participating in a community-based support group. We hypothesized that 1) markers of emotional expression in written cancer narratives would be associated with lower levels of emotional suppression, greater emotional self-efficacy, and lower levels of avoidant coping strategies, and 2) markers of emotional expression and cognitive processing would interact with emotional suppression in predicting levels of adjustment. The sample was 71% female (mean=56.9 years old) and included those with breast (30.1%), colorectal (9.6%), prostate (8.2%), and ovarian (8.2%) cancer. Although greater catastrophic thinking and suppression of anger were associated with lower levels of emotional suppression in written narratives (r = -0.24, p < 0.05), correlations between emotional expression and measures of emotional self-efficacy and suppression were non-significant. An interaction between emotional suppression and cognitive processing was observed: those with high levels of emotional suppression and high levels of cognitive processing exhibited greater mood disturbance. F(1,66) = 5.1, p < 0.028. These results suggest noteworthy differences between self-report and behavioral measures of emotional expressivity. Efforts to understand the interplay between cognitive and emotional aspects of coping with cancer may further enhance treatment-matching strategies.

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EMOTIONAL EXPRESSION AND ADJUSTMENT TO BREAST CANCER: A LINGUISTIC ANALYSIS

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We tested whether variations in emotional expressiveness predicted adjustment to breast cancer. Participants were 93 women, aged 30-84, recruited soon after diagnosis of Stages I-II breast cancer for a clinical trial of telephone therapy provided by oncology nurses. Women were asked to “express their deepest thoughts and feelings” over the telephone during 6, 30-min. sessions. The sessions were transcribed and content-analyzed using a computer program that counts and categorizes words (Linguistic I Language System or LIWC). We examined the extent to which different session content predicted changes in quality of life and emotional distress 6 and 12 months after therapy was initiated. Overall, the only category of words to consistently predict adjustment was the expression of emotions. Women who used more words associated with negative emotion (e.g., worthless, sad, angry) reported more distress, as assessed by the Profile of Mood States, 6-months after treatment initiation. In contrast, women who used more words associated with positive emotion (e.g., happy, pride, good) reported superior improvement in distress at the 1-year follow-up period. These data suggest that the content of emotional expression therapy may influence outcomes, but more expression of negative emotional expressivity does not appear to correlate with better adjustment.

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SAME TASK, DIFFERENT RESULTS: WORD USE IN EXPRESSIVE WRITING BY HEALTHY AND MEDICALLY-ILL INDIVIDUALS

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Expressive writing is an intervention used with healthy and medically-ill populations, and changes in word use across time are associated with psychological and physical outcomes. Greater use of certain words, such as first-person pronouns, has been linked to depression. The present study analyzed writing samples from three groups: cancer patients (n=94), medical patients without cancer (e.g., HIV, heart disease; n=131), and healthy populations (e.g., college students, head start workers; n=1410). To compare word use across groups, writing samples were analyzed with Linguistic Inquiry and Word Count. Using MANOVA, we evaluated group differences across the following linguistic domains: language (e.g., word count, dictionary, unique words), affect (positive, negative emotion words), cognitive mechanism (e.g., causal, insight, inhibition words), leisure, and metaphysical (death, religion words). Significant differences emerged in language, affect, cognitive mechanism, leisure, and metaphysical domains, all p<0.01. Specifically, the cancer sample used fewer unique words [F(2,1632)=36.6], more positive emotion [F(2,1632)=34.2], optimism [F(2,1632)=26.8], and metaphysical words [F(2,1632)=4.0] than non-cancer patients and healthy individuals, all p<0.05. Both patient groups used fewer anger and leisure words than the healthy sample. Finally, more cognitive mechanism words were used by the non-cancer medical sample than the other two samples. Knowledge of how the words used in expressive writing vary by medical status is informative methodologically, as pre-existing differences in word choice should be considered prior to outcome analyses in writing studies, and clinically, as manipulation of word choice through guided writing interventions may impact mental and physical health outcomes.

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PERCEIVED RISK AND WORRY IN PATIENTS BEING SCREENED FOR PROSTATE CANCER

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Higher levels of perceived risk and heightened worry about prostate cancer among healthy men with family histories of prostate cancer have previously been documented, largely in independent studies that have reported associations with screening adherence and medical variables. The relationships between these two constructs and broader indices of illness risk and worry, however, have yet to be fully characterized. We hypothesized a causal path with family history leading to increased perceived risk, leading to increased prostate cancer worry, leading to increased worry about illnesses generally. Men (n = 209, 41.7% Caucasian; 54.5% married; mean age 57.6 years, SD = 15.4 years) attending a prostate cancer screening at a urology clinic were assessed using a brief anonymous self-report measure of prostate cancer family history, and perceived risk and worry about prostate cancer and other diseases. Structural equation modeling (LISREL) revealed the following significant effects: 1) perceived risk-prostate cancer mediated a relationship between family history of prostate cancer and prostate cancer worry (CFI=1.00); and 2) perceived risk-other diseases increased perceived risk-prostate cancer; while prostate cancer worry increased other disease worry (CFI=1.00). Results supported the hypothesized causal model, and suggest the potential multiplier effects of an intervention strategy targeting inflated perceptions of risk.

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IMPACT OF SURVIVING CHILDHOOD CANCER ON LOCUS OF CONTROL AND REPRODUCTIVE CONCERNS

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The focus of the present study was to examine long term survivors of pediatric cancer’s reproductive concerns with a newly developed measure in an attempt to answer if patients’ general sense of control impacts their reproductive concerns. The participants included a sample of 208 survivors of childhood cancer.

A multivariate, multiple linear regression analysis was conducted to test for the relationships between the six factors of reproductive concerns (RCS) as the criterion variables and the three dimensions of locus of control (Internality, Powerlessness, and Chance) as the predictor variables. The IPC Internality subscale was related to five subscales of the RCS (F(6, 211) = 2.4521, p = 0.0261): Birth Defects (F(1, 206) = 4.0018, p = 0.0468, R² = 0.0064); Cancer Risk to Progeny (F(1, 206) = 8.1676, p = 0.0043, R² = 0.0305); Parenting Ability (F(1, 206) = 9.4823, p = .0024, R² = 0.0405), and Survival Concerns (F(1, 206) = 7.3893, p = .0072, R² = 0.0362). The IPC Powerful Others subscale was related to one subscale of the RCS (F(6, 200) = 2.6638, p = .0166), Parenting Ability (F(1, 206) = 3.8408, p = 0.0514, R² = 0.0157). The findings suggest that perceptions of control may impact the survivor’s anxiety over reproductive-related issues. Mental health professionals should focus interventions on increasing a survivor’s personal control.

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EMOTION-FOCUSED COPING PREDICTS LONELINESS IN PATIENTS WITH HEMATOLOGIC MALIGNANCIES UNDERGOING BLOOD AND MARROW TRANSPLANTATIONS

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The extended hospitalization required for patients undergoing a bone marrow transplant (BMT) presents a significant risk for isolation and loneliness. Coping may provide a buffer from loneliness over time. The impact of emotion- and problem-focused coping on loneliness was examined longitudinally. The moderating role of emotion- and problem-focused coping in the relation between loneliness at Time 1 and 2 was examined. Twenty-seven patients completed the UCLA Loneliness Scale and the Brief COPE. Questionnaires were completed prior to transplant and 100 days post-transplant. The moderating role of emotion-focused and problem-focused coping at Time 1 on the relation between loneliness scores over time, as well as the predictive relation between Time 1 coping and Time 2 loneliness, were examined through linear regression. Loneliness increased over time but did not differ significantly (p = .312). Loneliness at Time 1 did not predict loneliness at Time 2. Emotion-focused coping accounted for significant variance in loneliness at Time 2 (r2 = .47 p < .05). Emotion-focused coping at Time 1 predicted higher loneliness scores at Time 2. Neither emotion- nor problem-focused coping emerged as a moderator of loneliness. Emotion-focused coping did not correlate with loneliness at Time 1, suggesting that strategies such as seeking emotional support were less effective over time. Emotion-focused copers may have maintained higher expectations of caregivers. Directions for future research include measuring caregiver stress over time to examine the potential relation of caregiver burden to patient loneliness.

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“JUST ASK THE PATIENT”: CANCER PATIENTS AND PATIENT ADVOCATES SHARE THEIR OPINIONS OF AN ANTHOLOGY ADDRESSING END-OF-LIFE CARE

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Individuals with cancer and the providers that care for them have been shown to possess disparate views regarding the appropriateness of sharing difficult information with patients. Consequently, it is necessary to obtain patient perspective on new sources of information. The purpose of this study was to assess patient perspective on the emotional impact, clinical impact, and perceived appropriateness of providing patients with an anthology discussing end-of-life care. In this qualitative research study, 22 patients with advanced-stage cancer and 6 patient advocates received copies of “The Art of Oncology: When the Tumor is Not the Target,” and completed individual semi-structured interviews. Interview transcripts were coded using methods of content analysis, facilitated through use of N6 qualitative data analysis program. Results suggest that participants approved of sharing the anthology with select patients, especially those active in their care, accepting of their cancer status, and emotionally prepared to read about end-of-life issues. For those patients, participants described the anthology as having potential for positive impact on patient-physician communication and preparations for end-of-life care. For others, the anthology was considered “depressing” and “lacking in hope.” Men were more likely than women to decline interview and/or immediately discontinue reading the anthology after experiencing a strong negative emotional response. This anthology appears to be valuable for some, but participants emphasized the importance of allowing each patient to determine personal appropriateness of this resource.

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BREAST CANCER SURVIVORS AND WELL-WOMEN: A COMPARISON OF DEPRESSION, ANXIETY, AND HEALTH LOCUS OF CONTROL

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Research has investigated the relationship between health locus of control, depression, and anxiety levels of women who survive breast cancer. However, little research has directly compared these patterns with those observed for healthy middle-aged and older women. The present study compared breast cancer survivors and age-matched well-women on health locus of control (measured by the Multidimensional Health Locus of Control scale [MHLC]), anxiety (measured by the Beck Anxiety Inventory [BAI]), and depression (measured by the Center for Epidemiologic Studies – Depression [CES-D]). The sample consisted of 60 female breast cancer survivors previously diagnosed with stage 1 or stage 2 breast cancer and 60 well-women who had not had breast cancer. The groups were matched by age and ethnicity. T-test analyses showed a significant difference between the two groups on levels of depression (t = -2.15, p < .034; although both groups reported non-clinical levels of depression), internal health locus of control (t = -10.26, p < .0001), and powerful others health locus of control (t = 9.73, p < .0001). Results suggest that survivors report lower depression levels, lower internal health locus of control, and higher belief in the health control of powerful others than well-women, with no differences in reported levels of anxiety or the degree to which chance controls health. The interrelationships among these variables are explored and results are discussed in terms of the contribution of including relevant control groups when examining psychological factors in breast cancer or other life-threatening illnesses.

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PTSD IN SURVIVORS OF PEDIATRIC CANCER

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Purpose: Children with cancers may be at risk for experiencing post-traumatic stress disorder (PTSD), and symptoms may persist for years following treatment completion. The current study evaluated the incidence of PTSD in young adulthood survivors of childhood cancer and matched controls.

Methods: Children with cancers, originally recruited during treatment, completed a follow-up assessment after their 18th birthday (n=66). Participants were largely Caucasian (M=108, 93%), and male (n=75, 65%). Survivors had been treated for ALL (n=20, 36%), lymphomas (n=22, 39%), sarcomas (n=9, 16%), and other cancers (n=5, 10%). The K-SADS was completed with young adults and caregivers to assess for past and current symptoms of PTSD.

Results: Survivors had been off therapy for up to 10.42 years (M=5.5) when assessed for the current study. Overall, the incidence of PTSD was low for survivors and controls. Analyses revealed that only two young adult survivors met criteria for a diagnosis of PTSD in the past or present, and four controls met criteria for a PTSD diagnosis at some point. In regard to whether participants experienced individual symptoms of PTSD, either in the past or currently, the difference between young adult survivors (n=10) and matched controls (n=8) was not significant.

Conclusions: Young adult survivors of childhood cancers were similar to peers in terms of rarely meeting criteria for PTSD, suggesting that survivors may not be as vulnerable to experiencing post-traumatic stress symptoms as once believed.

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MULTIPLE HEALTH RISK BEHAVIORS AMONG BREAST CANCER SURVIVORS

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There are significant biomedical and psychosocial effects of health risk behaviors for cancer survivors. Previous research has examined the prevalence of single health risk behaviors among breast cancer survivors (BCS). However, little is known about the patterns of multiple health risk behaviors in the BCS population. Using data from the 2000 National Health Interview Survey, we examined the patterns and covariates of multiple health risk behaviors among a national sample of 333 BCS (median age = 66.0 years, 86.1% white). Participants completed questions on smoking, physical activity, and diet. We categorized individuals on four health risk behaviors: smoking, low physical activity, low fruit/vegetable consumption, and high fat diet. Only 4.8% of the sample had none of the four health risk behaviors, 26.2% had one, 33.0% had two, and 36.1% had three or four risk behaviors (M risk behaviors = 2.07). The most common combination of health risk behaviors among the sample (23.8%) was low physical activity, low fruit/vegetable intake, and high fat diet. Notably, every smoker (13.6%) had at least one other health risk behavior. Risk behaviors were most prevalent (all ps < .05) among women aged 18-49 (M = 2.52), those with low income (M = 2.72), blacks (M = 2.40), and individuals with no healthcare coverage (M = 3.10) or public healthcare coverage (M = 2.36). These results indicate that BCS typically have multiple health risk behaviors, and certain subgroups of BCS have more risk behaviors. This study highlights the need for systematic assessment and intervention for multiple health risk behaviors among BCS.

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COPTING WITH ADJUVANT CHEMOTHERAPY FOR BREAST CANCER: INTERRELATIONS FOR PROBLEM-AND EMOTION-FOCUSED COPING AND CONTROL

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This study was designed to explore the interrelations of control, coping, and distress for chemotherapy and breast cancer. Fifty-two women currently undergoing adjuvant chemotherapy treatment for breast cancer completed a mailed comprehensive questionnaire on coping and distress. Results indicated that there was no difference in the level of distress reported as a function of age, stage of breast cancer, type of surgery, or type of chemotherapy protocol. However, older women reported using less problem-focused coping than younger women. Women who reported more surgeries and those that reported more chemotherapy treatments reported a lower perception of cancer-related control. As predicted, emotion-focused coping positively related to depression (BDI), anxiety (BAI), perceived stress (PSS), distressed mood (POMS), and fatigue (BFI). Unexpectedly, problem-focused coping did not relate to any measure of distress. A predicted relation for perceived control and coping was also supported. Perceived control over cancer positively related to problem-focused coping and negatively related to emotion-focused coping for this context. This was the first study to examine both control and coping for chemotherapy treatment and breast cancer. Coping and control offer two ideal entries for clinical intervention and both are often included in many current cognitive-behavioral therapies.

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PREDICTORS OF POSTTRAUMATIC GROWTH IN LONG-TERM BREAST CANCER SURVIVORS

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A growing body of literature suggests that many cancer survivors associate positive personal changes, or posttraumatic growth (PTG), with their illness experience. However, relatively little is known about the correlates of PTG. We present cross-sectional data obtained from a sample of women (N = 1470) diagnosed with early-stage breast cancer to a) describe the extent of PTG reported by this sample, and b) shed light on the demographic and medical predictors of PTG. Women were a mean of 6.76 years from diagnosis at the time of assessment. Participants reported a moderate level of PTG (Mean PTG score = 61; total possible = 105). PTG was significantly higher in participants who were: a) younger, b) less educated, c) non-Caucasian, d) diagnosed with Stage II disease, and e) received chemotherapy. PTG was unrelated to time since diagnosis, marital status, type of surgery, or whether patient had radiation treatment. In the multivariate analysis, ethnicity and education retained significance as unique predictors of PTG, however, medical and demographic variables accounted for only a small proportion of the variance in the total PTG score ($R^2 = .04$). Findings suggest that demographic variables may be correlated with PTG and future research should consider potential mediating variables.

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DISTRESS AMONG IBD PATIENTS AT HIGH RISK FOR CANCER: OBJECTIVE RISK, PSYCHOLOGICAL THREAT, AND SOCIAL SUPPORT


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Colorectal cancer (CRC) is a leading cause of cancer deaths in the United States. It is a formidable disease, and being at high risk for CRC could reasonably be expected to cause distress. Inflammatory Bowel Disease (IBD) patients are one of only three groups at high risk for CRC. Their CRC risk surpasses the general population’s risk 8-10 years after IBD symptom onset and rises steadily thereafter. Yet, almost nothing is known about their cancer risk-related distress. In this cross-sectional study, we investigated factors expected to increase vulnerability to risk-related distress (CRC avoidance and intrusion, generalized distress) among 157 men and women participating in a Colon Disease Registry. We examined two sets of predictors: (a) factors associated with elevated objective risk for CRC (e.g., time since diagnosis, having an intact colon) and (b) factors expected to increase the psychological threat of cancer (e.g., spouse/friend cancer, family history of non-CRC cancers). We also investigated a potentially protective resource: perceived social support. Findings revealed different predictors for different types of distress. Greater generalized distress was predicted by lower social support, having had colon surgery, and having a spouse/friend with cancer, suggesting a role for psychological threat. Having a stronger family history of non-CRC cancers predicted increased CRC-related avoidance, but only for patients at highest risk for CRC due to longstanding IBD. No variables predicted CRC intrusion. Clinical and quality of life implications of these findings will be discussed.

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COLORECTAL CANCER SCREENING AMONG ASIAN INDIANS

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Purpose: To describe self-reported colorectal cancer (CRC) screening behavior among Asian Indians (AIs) in the U.S.

Sample: Randomly sampled AIs in 5 major U.S. cities taking part in a national epidemiologic study. This analysis includes 421 respondents (males = 281; females = 140) aged ≥ 50 years who completed a telephone interview between 2002-2004. The mean age of respondents was 58.8 years (SD ± 6.6) and length of stay in the U.S. was 24.7 years (SD ± 10.5).

Independent & Dependent Variables: Independent variables: sociodemographics, health care factors, health beliefs, acculturation, and family history of cancer. Dependent variable: CRC screening (i.e., ever having colonoscopy or sigmoidoscopy).

Analysis and Results: CRC screening was modeled in multivariate logistic regression analysis, adjusting for independent variables significant in bivariate analysis. The study response rate was 47%; Overall, only 40.3% (n=171) of respondents reported having CRC screening, with the majority of respondents (82.2%) having it within the previous five years. Factors significantly associated with CRC screening included: greater number of years living in the United States, more frequent visits to the doctor in the previous year, and having first degree relatives with any type of cancer.

Conclusions: This study is among the first to report on CRC screening behaviors among AIs. While AIs in this study have higher CRC screening rates than the general U.S. population, educational efforts about the importance of screening should be targeted to AIs less likely to obtain colorectal cancer screening including those who: are newer immigrants, visit the doctor less frequently, and have no family history of cancer.

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FINDING BENEFITS IN THE BREAST CANCER EXPERIENCE

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Many breast cancer patients report benefits from their cancer diagnosis and treatment. Benefit finding is a patient’s recognition of positive life changes attributed to cancer. The validity of benefit-finding measures in breast cancer populations is unclear. Moreover, some measures that investigators might choose to use were validated with other populations or studies of other circumstances [e.g., Perceived Benefits Scale (PBS) McMillen & Fisher, 1998; Posttraumatic Growth Inventory (PTGI) Tedeschi & Calhoun, 1996]. These measures neglect important benefits experienced specifically by breast cancer patients.

The current study compared items of the PBS and PTGI to patient-generated thoughts regarding breast cancer. Sixty-nine women with regional breast cancer (mean age 51 years, 91% Caucasian) listed thoughts associated with changes occurring in their lives during the 24 months since diagnosis. They also rated each change in terms of its valence (positive, neutral, negative) and importance (very important, important, somewhat important, not important). Three independent raters categorized the 2320 changes listed using the open-coding techniques of Strauss & Corbin (1998), yielding 89% inter-rater agreement.

Results suggest that 23 categories were required to capture the range of changes listed. Focusing on the benefits (positive-valenced changes) listed by patients, the most frequent and important categories of benefits were identified. Several of these, including health behavior changes and altruism, are not addressed by the PBS or PTGI, suggesting that these scales are inadequate for comprehensive assessments of benefit finding among breast cancer patients. Implications for developing content-valid measures of benefit finding in breast cancer patients are discussed.

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CANCER-RELATED BELIEFS AND HEALTH BEHAVIOR CHANGE AMONG CANCER SURVIVORS' FIRST-DEGREE RELATIVES
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Consistent with the Leventhal model, previous research has demonstrated associations between cancer survivors’ cancer-related beliefs and health behavior change. A randomized controlled study has been conducted on its efficacy for insomnia secondary to breast cancer. The study involved 68 breast cancer survivors (n=65; all female) and 33 colorectal cancer survivors (n=34; all male) who received CBT compared to control patients. This study supports the efficacy of CBT for insomnia maintained up to 12 months after the intervention. In addition, participants treated with CBT had significantly better subjective sleep indices (daily sleep diary and Insomnia Severity Index), a lower frequency of medicated nights, lower levels of depression and anxiety, and improved quality of life compared to participants of the control group after their waiting period. These effects were well maintained up to 12 months after the intervention. In addition, participants treated with CBT had higher IFN-γ production and lower levels of lymphocytes at posttreatment compared to control patients. This study supports the efficacy of CBT for insomnia secondary to breast cancer and earlier findings indicating a relationship between clinical insomnia and some immune parameters.

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COGNITIVE-BEHAVIORAL THERAPY FOR INSOMNIA SECONDARY TO BREAST CANCER: PSYCHOLOGICAL AND IMMUNOLOGICAL EFFECTS
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Chronic insomnia is highly prevalent in cancer patients. Cognitive-behavioral therapy (CBT) is considered the treatment of choice for chronic insomnia. However, no randomized controlled study has been conducted on its efficacy for insomnia secondary to cancer. There is also suggestion that insomnia is associated with immune alterations but this relationship has yet to be investigated in a prospective study. Using a randomized controlled design, this study conducted among breast cancer survivors evaluated the effect of a CBT on sleep, assessed both subjectively and objectively, hypnotic medication use, psychological distress, quality of life, and immune functioning. Fifty-seven women with insomnia caused or aggravated by breast cancer who received CBT had significantly better subjective sleep indices (daily sleep diary and the Insomnia Severity Index), a lower frequency of medicated nights, lower levels of depression and anxiety, and greater global quality of life at posttreatment compared to participants of the control group after their waiting period. These effects were well maintained up to 12 months after the intervention. In addition, patients treated with CBT had higher IFN-γ production and lower levels of lymphocytes at posttreatment compared to control patients. This study supports the efficacy of CBT for insomnia secondary to breast cancer and earlier findings indicating a relationship between clinical insomnia and some immune parameters.

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END OF LIFE DECISION PLANNING IN WOMEN WITH ADVANCED BREAST CANCER
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BACKGROUND: End of life (EOL) decision planning and written advanced directives (WAD) are of interest to healthcare professionals (HCP). It is unclear if patients with advanced cancer are inclined to participate in EOL decision planning and what influences their completion of WAD.

PURPOSE: To evaluate EOL decision planning in metastatic breast cancer (BC) patients and to examine factors associated with completion of WAD.

METHODS: This was a cross-sectional study of 173 metastatic BC patients (mean age = 54 years, mean time since metastatic diagnosis = 36 months). At one time point, participants completed validated instruments assessing mood, physical symptoms, quality of life (QOL), and coping styles, as well as questions regarding EOL decision planning. Descriptive and logistic regression analyses were conducted.

RESULTS: 52.6% had not completed WAD. Most participants (63%) discussed personal wishes for EOL care with others and were least likely to discuss this issue with their HCP. Older patients were more likely to have WAD than younger patients (chi-square=6.42, p=.01). Fatalistic coping style significantly predicted EOL decision planning (chi-square=5.83, p=.016), while other variables were not statistically significant.

CONCLUSION: A high percentage of advanced BC patients do not have WAD nor do they tend to discuss this issue with HCP. Younger patients are less likely to participate in EOL decision planning, despite the aggressive nature of metastatic BC in younger versus older patients. Coping style, rather than other variables, may influence the metastatic BC patient’s decision to prepare for impending death.

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DOES RECEIPT OF CANCER SCREENING TESTS ALTER PERCEIVED RISK OF DEVELOPING CANCER?
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Perceived risk is often conceptualized as having a unidirectional relationship with health behavior (i.e., perceived risk influences health behavior). Consistent with this view, many cancer screening interventions have aimed to influence screening by increasing perceived cancer risk. The conceptualization of the relationship between risk and behavior as unidirectional is likely oversimplified. Bidirectional conceptualizations of risk perception and behavior propose that performing health behaviors, in turn, alters risk perceptions. We examined these issues among 1077 subjects enrolled in a randomized trial that evaluated the effect of a print + telephone counseling intervention, designed to increase perceived risk, among first-degree relatives (FDRs) of colorectal cancer (CRC) cases not currently adherent to screening. FDRs were recruited via a statewide cancer registry of CRC cases. Telephone interviews at baseline and 12 months later assessed perceived risk and screening behavior. Perceived risk increased among intervention group subjects between baseline and 12 months. No change in perceived risk was detected within the control group. Next, we examined the change in perceived risk separately within screened and unscreened intervention subjects at follow-up. Unscreened intervention subjects showed an increase in perceived risk between baseline and 12 months. However, screened intervention subjects did not display this increase. Among control group subjects, perceived risk did not change regardless of screening status. Results provide support for an effect of the intervention on perceived risk and a more complex relationship between perceived risk and health behavior than typically investigated.

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STRATEGIES FOR MANAGING FATIGUE IN AFRICAN AMERICAN CANCER SURVIVORS

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Cancer-related fatigue is the most commonly reported symptom during and after treatment, affecting up to 96% of patients and survivors. This fatigue negatively impacts quality of life, increasing distress, isolation, insomnia, depression, and other problems. To date, research on post-treatment fatigue has focused mainly on Caucasian samples, and is poorly understood among other ethnic groups. Although African Americans have the highest incidence and mortality rates for all cancers combined, there is limited literature on their post-treatment fatigue. This study assessed coping strategies used by African American cancer survivors to manage post-treatment fatigue. Twenty-four survivors experiencing clinically elevated fatigue reported on strategies they used to manage fatigue in a semi-structured interview. Participants (11 men, 13 women) ranged in age from 41-84 years old (mean = 59). Coping responses were coded into twelve categories (inter-rater reliability = 93.55%). Survivors reported using up to 7 strategies, with a mean of 3.63 (SD=1.78) strategies. For the sample, the most frequently reported coping strategies used were increasing rest and increasing exercise, with 13 (54.2%) participants reporting each. The participants reported high to severe levels of fatigue on the MFSI-SF general subscale (mean = 14.13). Bivariate correlation analysis yielded a statistically significant relationship between 2 coping categories and fatigue levels. Using medications and improving dietary practices were both related to higher levels of general fatigue (p >0.05). These findings identify strategies that can be used to manage fatigue post-treatment and lessen its impact.

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ASSOCIATIONS BETWEEN DISPOSITIONAL CHARACTERISTICS AND SMOKING AMONG ADOLESCENTS IN CHINA

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Dispositional characteristics such as hostility, anxiety, and depression have been associated with smoking in industrial countries. However, these associations have rarely been reported among Chinese adolescents.

Data from baseline survey of a longitudinal smoking prevention study among middle and high school students (n=14,434) in China seven geographically diverse cities during 2002-2003 were analyzed. Lifetime, current, and additive smoking were dichotomized as (1) smoking and (0) non-smoking. Hostility, anxiety, and depression were measured using Likert scales and recoded as low, median, and high. Multilevel analyses for binary outcomes were performed using Glimmix macro procedure in SAS to examine associations between dispositional characteristics and smoking behaviors, accounting for correlations among individuals within same schools. Demographic, intrapersonal, interpersonal and social factors were considered as possible confounders.

Prevalence rates increased for all three smoking behaviors with increasing levels of each dispositional characteristic. After adjusting for possible confounders, current smoking was significantly associated with hostility (OR, 2.7; 95% CI, 1.8-4.1), anxiety (OR, 1.4; 95% CI, 1.1-1.9), and depression (OR, 2.1; 95% CI, 1.6-2.8). Similar pattern was detected for associations between lifetime smoking and hostility (OR, 1.8; 95% CI, 1.5-2.2), anxiety (OR, 1.7; 95% CI, 1.5-2.0), and depression (OR, 1.7; 95% CI, 1.4-1.9). Addictive smoking was only significantly associated with depression (OR, 2.8; 95% CI, 1.3-5.7).

In conclusion, lifetime and current smoking were associated with multiple dispositional characteristics. However, addictive smoking was associated with depression, but not with hostility and anxiety. These findings provide overall profiles of associations between dispositional characteristics and smoking behaviors among Chinese adolescents.

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USE OF NICOTINE REPLACEMENT THERAPY AMONG ADOLESCENTS IS RELATED TO GENDER, SMOKING STATUS, AND RISK BEHAVIOR ATTITUDES

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While studies of nicotine replacement therapy (NRT) use in adults have been published, few studies are available describing use of NRT among adolescents. This study examined self-reported prevalence of NRT use, risk factors of use, and ease of access in 11th graders from 40 public high schools in Memphis, TN. Among 4078 students, 216 reported some level of NRT use, with 41.6% reporting trying “at least once” or using gum, 29.2% trying/using patches, and 29.2% trying/using both patches and gum. Regular NRT use was only 13.9% endorsed using NRT to quit smoking. Those perceiving easy access to NRT were more likely (OR=1.4, 95% CI=1.01-1.93) to report exclusive use of gum products. Multivariable models showed that regular NRT use was more likely among those with high vs low risk-taking attitudes (X²=11.33, p<0.01). NRT use was also more likely for males compared to females and increased for experimental, former and current smokers compared to never smokers. A significant interaction between smoking status and gender (X²=10.9, p<0.01) indicated that males risk for NRT use increased more rapidly among smoking categories than females. Overall, NRT use increased with higher risk-taking attitudes, being male, and more likely in current and former smokers compared to others. However, few smokers indicated using NRT to try to quit.

Supported by a grant from the Partnership for Women’s and Children’s Health, LHS, Inc.; gathered in conjunction with the Memphis Health Project survey.

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PERCEIVED RISKS OF CANCER: DIFFERENCES BY DEMOGRAPHICS

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Perceived risk is considered important to adoption of health-related behaviors, yet perceptions often do not reflect estimates derived from risk factors. Interventions to change perceptions have had mixed results. A few studies have suggested that women are likely to have higher risk perceptions than black, but demographic variations have received little attention.

To examine influences of demographics on perceived breast and colon cancer risks, data were analyzed from the National Cancer Institute’s Health Information National Trends Survey (HINTS), a probability-based sample of 6369 respondents asked about need for, access to, and use of cancer-relevant information. Analyses were conducted on a sub-sample of 3,297 women ages 18-95, with no personal history of cancer. A single perceived risk item assessed absolute, lifetime chance of getting breast (colon) cancer in the future. Five responses, ranging from “very low” chance of getting breast (colon) cancer to “very high,” were treated continuously, using SUDDAN to account for complex sample design.

Risk perceptions varied by demographics. In separate multiple regression analyses including race, education, income, age and family history, being black was significantly associated with lower perceptions of breast (β=-0.18, p<0.05) and colon (β=-0.18, p<0.05) cancer risks. Respondents with at least some college were more likely to report lower colon cancer risk perceptions (β=-0.29, p<0.05).

Interventions to change health behaviors are increasingly adapted to specific, often racial, demographic groups. These data suggest researchers and interventionists should consider race and education when targeting interventions to breast and colon cancer risk perceptions.

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PERCEIVED RISK AND INTOLERANCE FOR UNCERTAINTY AS PREDICTORS OF DISTRESS IN WOMEN RECEIVING UNINFORMATIVE GENETIC TEST RESULTS
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Patients who receive uninformative BRCA1/2 mutation test results face considerable uncertainty regarding their future breast and ovarian cancer risks. Baum, Freidman and Zakowski’s (1997) model of adjustment to genetic test results highlights the role of uncertainty as a key determinant of adjustment. Individuals vary in their tolerance for uncertainty. Thus, we sought to examine the role that tolerance for uncertainty might play in adjustment to uninformative BRCA1/2 test results and had not received bilateral mastectomy or oophorectomy participated. Participants completed measures of perceived breast cancer risk at baseline (pre-testing), 1- and 6-months post disclosure. Participants also completed the intolerance for uncertainty scale (IUS) at baseline and a measure of cancer-specific distress at baseline and 6-months post-disclosure. Multivariate modeling we controlled for baseline distress and perceived breast cancer risk. Perceived risk one month post-disclosure (β=.35, t(54)=2.36, p<.05) and IUS (β=.34, t(54)=2.86, p<.01) significantly predicted distress at six months. The IUS x perceived risk interaction (β=.35, t(55)=3.19, p<.01) was also significant. Distress was highest among patients who were highest in both perceived risk and IUS. These results indicate that among breast cancer survivors who receive uninformative genetic test results, those who believe that they remain at high risk for a second breast cancer and who have difficulty coping with their ambiguous risk, are at greatest risk for long-term distress.

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A META-ANALYSIS OF THE RELATIONSHIP BETWEEN RISK PERCEPTION AND RISK BEHAVIOR: THE EXAMPLE OF VACCINATION BEHAVIOR
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Although the notion that perceived risk motivates behavior is central to most health behavior theories, some studies have reported null (or even negative) relationships that are discrepant with these theories. We conducted a meta-analysis based sleep assessments at baseline, 6, and 12 months. Participants were randomized to either a 12-month moderate exercise arm (n=36) or to a health education arm (n=30). Simultaneous regression analyses (controlling for age, gender, arm assignment, and baseline sleep characteristics) indicated that having stronger morning preferences, compared to evening preferences, was related to PSG-defined measurements of: 1) shorter sleep latency with lights on (p<.05; baseline & 12 months); and 3) decreased REM sleep % (p<.05; baseline). Findings suggest that “early bird” older adults tend to have faster and that alcohol is a good sedative (18%).

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Recent studies have demonstrated differences in physiological responses in individuals preferring morning (“early bird”) versus evening (“night owl”) (M-E) activities, yet few have examined correlates of M-E type in older adults. This study sought to examine whether M-E type was related to both objective (polysomnography-PSG) and subjective (Sleep Patterns Questionnaire-SPQ) sleep characteristics in a sample of older adults (≥55 years of age), with reported sleep complaints. Sixty-six women and men (ages=61±7, 67% women, 85% non-Hispanic white, BMI=28±5, 55% Morning-type) participated in home-based sleep assessments at baseline, 6, and 12 months. Participants were randomly assigned to either a 12-month moderate exercise arm (n=36) or to a health education arm (n=30). Simultaneous regression analyses (controlling for age, gender, arm assignment, and baseline sleep characteristics) indicated that having stronger morning preferences, compared to evening preferences, was related to PSG-defined measurements of: 1) shorter sleep latency with lights on (p<.05; baseline & 12 months); and 3) decreased REM sleep % (p<.05; 6 months); and 3) decreased digitized chin muscle activity (p<.01) during REM (12 months); as well as fewer self-reported problems (SPQ) with: 4) going to sleep or waking up (p<.05; baseline); and 5) perceived snoring/breathing difficulties while sleeping (p<.05; baseline). Findings suggest that “early bird” older adults tend to have objective and subjective indicators of better sleep quality than their “night owl” peers. These differences may have important implications for interventions targeting sleep problems in older adults.

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DOES MORNING-EVENING TYPE AFFECT SLEEP QUALITY IN OLDER ADULTS PRESENTING WITH SLEEP COMPLAINTS?

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SLEEP AND HEALTH PROBLEM SURVEY IN THAILAND, THE PHILIPPINES AND TAIWAN
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This study characterized prevalence of sleep difficulties in three Asian countries. The survey was conducted in two phases, door-to-door (N=3,668) and telephone (N=900) interviews with structural sleep questionnaires in adults aged 18 to 77 living in urban areas in the Philippines (N=2,000 and 300), Taiwan (N=614 and 300) and Thailand (N=1,854 and 300) respectively. More than half of Asian population surveyed reported that they experienced sleep problems. The most commonly reported sleep difficulties are problems falling back asleep after waking during the night (56%), difficulty falling asleep (52%), felt drowsy or tired upon awakening (44%), wake up in the middle of the night (44%), and wake up too early in the morning (38%). On average, deficient sleepers get less than six hours of sleep per night, and sleep poorly about 14 nights each month. In the Philippines a higher proportion of women (61%) while in Taiwan men (72%) report being most affected. Older individuals report suffering from sleep difficulties in all countries. Ninety-two percent of those severely or moderately affected indicate stress is the primary cause. Other factors include health problems (41%), environmental issues such as lighting or noise (26%) and family problems (17%). Those whose sleep problems are severe are more likely to attribute them to workplace stress (55%) and health problems (51%). Asians appear to understand impacts of poor sleep on a person’s quality-of-life, health and well being, and personal relationships. Nearly half (44%) of those surveyed mistakenly believe exercising before bedtime is an effective way of getting to sleep faster and that alcohol is a good sedative (18%).

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A META-ANALYSIS OF THE RELATIONSHIP BETWEEN RISK PERCEPTION AND RISK BEHAVIOR: THE EXAMPLE OF VACCINATION BEHAVIOR

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Although the notion that perceived risk motivates behavior is central to most health behavior theories, some studies have reported null (or even negative) relationships that are discrepant with these theories. We conducted a meta-analysis of risk-behavior relationships to better understand the true size and direction of the relationship. We examined three risk constructs: likelihood (how likely the illness is to occur), susceptibility (how susceptible that individual is), and severity (how severe the illness would be). We focused on vaccination behavior because it is directed toward a specific risk, in contrast to many other health behaviors, such as exercise, that have many goals.

35 articles met inclusion quality criteria. Effect sizes were pooled using standard meta-analysis procedures and then transformed back to effect size r. The analyses revealed that effect sizes were positive and statistically significantly for all three risk measures, but that likelihood showed the largest relationship to vaccination behavior (r=.26, p<.001). Prospective studies showed larger effect sizes than cross-sectional studies (likelihood r=.29 vs. .24, p<.01; severity r=.24 vs.13, p<.001). Higher quality risk measures showed larger effect sizes than lower quality ones. Other significant predictors of vaccinations included population, disease, percentage vaccinated, and extremity of risk beliefs. The findings strongly suggest that higher risk perception is a motivator of vaccination behavior, and that previously reported mixed findings with respect to risk perception-risk behavior relationships reflect methodological limitations.

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STRUCTURAL EQUATION MODELING OF LONGITUDINAL PROCESS-TO-OUTCOME RELATIONSHIPS FOR DECISIONAL BALANCE AND SUN PROTECTION BEHAVIORS

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Data from a randomized controlled community trial of the effectiveness of a multi-component stage-matched intervention to increase sun protection among beachgoers were longitudinally modeled to delineate process-to-outcome patterns of decisional balance measures and two sun protection behaviors. Participants were between 16-65 years old, female (60%), white (94%), single (51%) or married (40%), high-school educated (88%), and earned a median annual income of $45,000-65,000. A total of 8 cross-lagged longitudinal structural equation models delineated the temporal relationships between the pros and cons of sun protection and two sun protection behaviors (sun avoidance, sunscreen use) in both treatment and control groups. All models fit well, with an average CFI=.95 and AASR=.04. The findings indicate (1) a strong, positive relationship between the pros of sun protection and subsequent behavior change during the intervention phase of the trial for the treatment group but not for the control group; (2) a diminished relationship between the pros and subsequent behavior during follow-up in the treatment group; and (3) no relationship between the cons and behavior change for either group at any timepoint. These findings provide evidence supporting Prochaska’s “strong” principle of change. Due to a lack of later-stage participants, the “weak” principle could not be adequately evaluated. Results also support the role of the pros of sun protection as one component of an effective tailored intervention package to reduce unprotected sun exposure and skin cancer.

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TYPE OF MAGAZINE READING PREDICTS TAN ATTITUDES

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Skin cancer is the most common of all cancers in the U.S. Despite increased awareness of the link between skin cancer and sun exposure, there is evidence that young adults in particular continue to expose themselves to considerable ultraviolet (UV) radiation. Previous research suggests that the primary motivation for tanning is to enhance perceived physical attractiveness (i.e., to obtain a tan). Although there may be many mechanisms through which a beauty trend is communicated to the public, clearly media exposure is a major factor. The eating disorder literature has demonstrated a link between media exposure and perceived attractiveness of thin body types. Adolescents are likely to be influenced by the media, and they are often in the process of forming their own identity. This study examines the relationship between media exposure and tan attitudes. We hypothesized that media exposure would be related to tan attitudes.

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PERSONALITY ASSESSMENT SCREENER (PAS) PROFILES AMONG HIV+ STIMULANT DRUG USERS
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The Personality Assessment Screener (PAS) (Morey, 1997) is a self-report measure of overall psychological distress, which provides 10 subscales representing distinct psychological constructs. It was developed through extensive item analysis from its parent instrument: the Personality Assessment Inventory (PAI). The goals of the current project were to examine the ability of the PAS to identify clinically relevant factors associated with substance use/abuse among HIV infected adults. Methods: Participants consisted of 109 ethnically diverse HIV infected individuals (93 male, 16 female) with an average age of 40.7 recruited as part of an ongoing study of medication adherence. PAS profiles were compared between groups based on stimulant drug use status as objectively verified through the use of urine toxicology assays. Results: All PAS scales were elevated (i.e. >.747) for both groups with Acting Out (stimulant use, 76.5; non-use 69.7) and Social Withdrawal (stimulant use, 66.8; non-use, 66.0) the highest elevations. Stimulant users scored significantly higher than non-users on the Acting Out (t(107) = 2.2, p = .03) and Alienation (t(107) = 2.2, p = .03) clinical subscales. Conclusions: The PAS may be useful in identifying target psychological symptoms in the treatment of HIV+ stimulant users. Interpersonal alienation and the tendency towards acting out likely contribute to the drug use/abuse seen in our sample.

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DOES WITHIN-PERSON VARIABILITY IN CONDOM USE MOTIVATION PREDICT BEHAVIOR?
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Motivation to use condoms (i.e., attitudes, perceived efficacy, and intentions), a well-established predictor of condom use behavior, is commonly conceptualized as a relatively stable construct (Fishbein & Ajzen, 1975; Fisher & Fisher, 1992). Research from other health behavior domains (Tennen et al., 2000) suggests that within-person variability in relevant predictors may also be important in understanding health behaviors. We tested the hypothesis that the magnitude of day-to-day variability in motivation to use condoms predicts condom use. Sexually-active college undergraduates (N = 115) in a 30-day web-based daily diary study prospectively reported their motivation to use a condom if they had sex that same evening and then the next day retrospectively reported their sexual and condom use behaviors. Structural equation modeling was used to test a model in which mean levels of motivation and within-person variability in motivation were tested as unique predictors of the proportion of unprotected sex acts. The model as specified was a good fit to the data, χ2 = 12.977, df = 9, p = .164, CFI = .997, RMSEA = .062. Within-person variability in motivation explained a significant amount of variation in the proportion of unprotected sex acts over and above that explained by mean level of motivation to use condoms. These results suggest that interventions to increase condom use motivation as a way to increase condom use behavior should consider that motivation to use condoms may be dynamic.

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PREDICTORS OF CONSISTENT CONDOM USE AT 6 MONTHS IN A DIVERSE COMMUNITY SAMPLE OF MEN AND WOMEN
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This study examined baseline prospective predictors of consistent condom use at the 6-month follow-up of an RCT to increase condom use. The sample, recruited at 10 heterogeneous sites (9 in RI, 1 in NY), included 463 sexually active and at-risk diverse participants (67% female, 41% Caucasian) between 18-45 years old (M=31.6, SD=8.2). N=301 participants (65%) were resurveyed 6 months later. After univariate logistic regression analysis of many demographic (gender, racial/ethnic background, age, education, income, employment, marital status, religion), psychological (partner support, communication, sexual assertiveness, sexual self-acceptance, anticipated partner reaction, stress, coping, depression), historical (Ever had an STI, Age of sexual debut, Child sexual abuse, Sexual victimization, Physical Victimization), and behavioral (stages of condom use, pros and cons of condom use, confidence, temptation, processes of change, stages of condom use with main partner, stages of condom use with other partners, contraceptive use, alcohol use, drug use, smoking) variables to identify potential predictors, a forward stepwise logistic regression analysis was conducted which found that treatment group (OR=1.99), male gender (OR=2.59), and anticipated partner reaction to initiation of sex (OR=1.86) significantly predicted consistent condom use at 6 months (sensitivity=55.2%, specificity=69.4%, overall correct classification=66.6%). Consistent condom use was best predicted longitudinally by receipt of the computer-based TTM-tailored intervention, by being male, and by anticipating a positive partner reaction to sexual initiation. Further efforts to examine relevant process-to-outcome relationships are recommended. Important implications of these findings for the optimal targets of sexual behavior change interventions are discussed.

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THE IMPACT OF HIV SEROSTATUS DISCLOSURE ON SEXUAL RISK BEHAVIOR: FINDINGS FROM AN EVENT LEVEL STUDY OF HIV+ WOMEN AND MEN
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HIV serostatus disclosure allows couples to make informed choices regarding health risks. However, the role of disclosure in facilitating condom use is not fully understood. We examined the prevalence and sexual behavior correlates of disclosure for a specific sexual event among 208 HIV+ persons (41% female; 41% African-American) receiving care at an infectious disease clinic. Participants described their most recent sexual encounter, including serostatus disclosure, sexual risk behavior, substance use, and partner serostatus. Overall, 76% of participants disclosed their serostatus during (or prior to) the encounter and 37% reported unprotected vaginal or anal sex. Situational correlates of disclosure included (a) having a partner who was also HIV+, (b) being in a primary relationship, and (c) avoiding substance use (p < .005). Unprotected sex was more common for encounters involving non-disclosure (52%) relative to encounters during which serostatus was disclosed (32%), p < .02. In a multivariate analysis, a significant gender-by-disclosure interaction emerged (p < .05), indicating that non-disclosure was more strongly related to sexual risk among HIV+ women relative to men. Findings indicate that serostatus disclosure is associated with decreased risk behavior among HIV+ persons and suggest that the dynamics of disclosure and risk behavior may vary as a function of gender. By collecting data in a manner that allows linkage of disclosure to specific sexual encounters, this research addresses a methodological shortcoming of prior research and highlights the importance of serostatus disclosure.

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A TELEPHONED-DELIVERED COPING IMPROVEMENT GROUP INTERVENTION FOR OLDER ADULTS LIVING WITH HIV/AIDS

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Objectives: To determine if a coping improvement group intervention delivered via teleconference technology can facilitate the adjustment efforts of persons 50-plus years of age living with HIV/AIDS.

Method: Participants (N=90; mean age=54.4 years; 52% White; 62% Male) were recruited through AIDS service organizations (ASOs) in Pittsburgh, PA; Cincinnati, OH; Buffalo, NY; and Phoenix, AZ. The study used a lagged treatment, control group design, in which 45 participants were assigned to an “Immediate Intervention” condition and 45 to a “Delayed Treatment” condition. Immediate Treatment participants completed a pre-intervention assessment, received the intervention, and completed post-intervention and 3-month follow-up assessments. Delayed Treatment participants completed two pre-intervention assessments, received the intervention, and then completed a post-intervention assessment. Surveys assessed psychological symptoms, life-stressor burden, social support, coping, and coping self-efficacy.

Results: ANOVA using intent-to-treat procedures indicated that, relative to Delayed Treatment participants, Immediate Treatment participants reported greater reductions in psychological symptoms (p < .05) and increases in coping self-efficacy (p < .05) and increases in coping self-efficacy (p < .06), and avoidant coping and significant increases in coping self-efficacy (p < .07). Immediate Treatment participants maintained these changes at 3-month follow-up. Within-group analyses indicated that, after receiving the intervention, Delayed Treatment participants reported reductions in psychological symptoms (p < .08) and life-stressor burden (p < .06) and increases in coping self-efficacy (p < .01).

Implications: These data suggest that the adjustment efforts of HIV-infected older adults can be facilitated through participation in an age-appropriate, telephone-delivered, coping improvement group intervention.

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THE STUDY OF STRESS MANAGEMENT DURING PREGNANCY USING THE TRANSTHEORETICAL MODEL OF BEHAVIOR CHANGE

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A multitude of health risks are instigated by the occurrence of stress during pregnancy. Surprisingly, little research has examined the stress management practices of pregnant women and the promotion of such practices among this population. This presentation reports on a preliminary examination of the beliefs and practices surrounding stress management among a sample of pregnant women (N=156). English speaking women over 18 and at least 10 weeks pregnant were recruited from midwife and obstetrician offices to complete a paper-and-pencil survey. The majority were White (91.7%), married or living with a partner (93%), and had a household income greater than $45,000 (73%). The data were used to develop measures of stage of change, decisional balance, and self-efficacy. Having reported the daily practice of effective stress management, nearly 70% of the sample was classified in Action or Maintenance. Principal components analyses and structural equation modeling were conducted to develop pregnancy-specific measures. The resulting decisional balance instrument consisted of two 6-item scales measuring the pros (Alpha=.89) and cons (Alpha=.83) of practicing stress management (CFI=.93; AASR=.05). For self-efficacy, a single 6-item factor was found (Alpha=.88; CFI=.95; AASR=.03). These measures were examined across the stages to establish construct validity. As predicted pros increased significantly, F(4, 144)=2.56, p<.05, h2 = .066, cons decreased significantly, F(4, 145)=3.66, p<.01, h2 = .092, and confidence increased significantly across the stages, F(4, 147)=3.87, p<.01, h2 = .095. These results offer preliminary validation for the application of the TTM to pregnancy-specific stress management. This is an important first step in the promotion of stress management among this population.

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PSYCHOSOCIAL CORRELATES OF ADOLESCENT MALES’ PREGNANCY INTENTION

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Objective: To identify psychosocial differences between sexually experienced male adolescents who indicate intentions to get someone pregnant and those who do not.

Design: Cross-sectional study.

Settings: STD clinic and HMO adolescent medicine clinic in northern California.

Participants: 206 sexually experienced adolescent males.

Main Outcomes Measure: Student’s t-tests and regressions examined psychosocial differences between males who reported any intention versus no intention to get someone pregnant in the next six months. ANOVAs examined differences among different combinations of pregnancy plans/likelihood.

Results: Adolescents’ reports of their plans for getting someone pregnant differed from their assessments of the likelihood that they would do so (χ2 = 52.54, df = 16, p < .0001). Attitudes toward condoms and pregnancy, self-efficacy to use condoms, and intentions to use condoms in the future were correlated with differences among those who plan to have sex with partners in future sex acts. Differences in pregnancy plans/likelihood were predictive of pregnancy intentions (Planning and Likely, but Not Likely) among those with clear pregnancy intentions (Not Planning, but Likely) among those who have sex with partners in future sex acts. Conclusions: To reduce adolescent childbearing we must assess males’ pregnancy intention and ask about their intention in multiple ways.

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PSYCHOLOGICAL HEALTH AND HIV-RELATED BEHAVIORS AMONG CHINESE FEMALE SEX WORKERS IN HONG KONG

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With a mapping exercise, 293 Chinese female sex workers (FSW), from karaoke/internet clubs providing sex services in Hong Kong, were interviewed. Of them, over 1/3 aged <20; 70% have served as FSW for <1 year; 55% attained junior high education.

Psychological problems were prevalent: 55% were probable depression cases (CES-D >16); 59% were emotionally unstable; 38% had suicidal ideation; 53% reported frequent insomnia; about 40% used substances. They tended to have lower quality of life (QOL; SF-36), lower self-esteem, pessimistic future outlook, and poor social support. Such problems were more prevalent among those younger.

About 50% did not use condoms consistently with clients. In the last 6 months, 73% and 23% respectively experienced unprotected sex with boyfriends or causal sex partners; 14% contracted STD; over 70% had not performed HIV antibody test or regular STD checkup.

Adjusting for background factors, psychological problems were significantly associated with condom use or HIV/STD testing behaviors. For instance, those with suicidal ideation, lower mental health QOL score and pessimistic future outlook were associated with inconsistent condom use with clients (OR=1.62 to 3.68); substances use, probable depression, suicidal ideation and pessimistic future outlook were associated with unprotected sex with causal partners (OR=1.96 to 4.62). Emotionally unstable, lower mental health and vitality QOL scores, substances use, and pessimistic future outlook were associated with not performing regular STD checkups (OR=1.96 to 7.15).

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KNOWLEDGE OF CERVICAL DYSPLASIA AND HUMAN PAPILLOMA VIRUS AMONG WOMEN IN A COLPOSCOPY CLINIC

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Colposcopy clinic patients with greater knowledge about the range of issues surrounding cervical cancer have higher rates of adherence to follow-up screening and treatment. This paper reports on knowledge of cervical dysplasia and human papilloma virus among women (n=175) attending initial colposcopy appointments for follow-up of an abnormal Pap smear. Patients included women referred on the basis of an abnormal Pap smear (n=87) and screening clinic patients who had an abnormal Pap smear in the last 12 months (n=88). Structured interviews assessed demographics, knowledge, and psychological distress prior to, during, and after colposcopy exam. Respondents had low knowledge before and after colposcopy; however, after the exam they demonstrated a significant improvement in their overall knowledge (t=2.3, df=150, p=0.026). When examined by question, respondents demonstrated a significant increase in only one question: Does dysplasia, or precancerous cells on the cervix, always go away without treatment? Pre-exam knowledge was positively associated with educational level and lower among Hispanics and referral patients. Post-exam knowledge was positively associated with pre-exam knowledge, educational level, and embarrassment about the colposcopy. Contrary to our hypotheses, neither pre- nor post-exam knowledge was associated with anxiety. The results of this study suggest that routine clinical education during colposcopy can improve patients understanding of cervical cancer; however, the low level of knowledge persisting after colposcopy is a cause for concern.

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Meritorious Student Poster

EFFECTS OF A COGNITIVE-BEHAVIORAL STRESS MANAGEMENT INTERVENTION IN MEN WITH A HISTORY OF SUBSTANCE USE LIVING WITH HIV/AIDS

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This pilot study investigated the effects of a group-based Cognitive-Behavioral Stress Management (CBSM) intervention on social support, coping, mood, HAART adherence and HIV symptoms, and viral load in a population of heterosexual men (N=57) living with HIV/AIDS and a history of substance use. Blood draws, psychosocial batteries, and physical examinations were administered pre- and post-intervention. Participants were 41% Black, 36% White, 17% Hispanic, and 6% of other origin. The SPS, Brief COPE, POMS, ACTG Questionnaire for Adherence to Anti-HIV Medications, and PCR techniques were used to assess social support, coping, mood, HAART adherence and HIV symptoms, and viral load respectively. Repeated measures ANOVA analysis showed that opportunity for nurturance (F(1,39)=5.43, p<.05) and reliable alliance (F(1,45)=4.71, p<.05) significantly increased pre- to post-intervention among participants randomized to the CBM condition. Trends were identified with respect to reductions in substance use coping, confusion, total mood disturbance, and HIV symptoms (all ps<.10). These findings suggest that psychosocial intervention may be effective in improving social support in this population, and to some extent, may reduce substance use, distress and HIV symptom burden. Lack of an intervention effect on adherence, symptom manifestation, and viral load may be explained by high adherence rates (i.e., 74% of participants were >95% adherent). Further studies are needed to explore the psychosocial and clinical benefits of increasing social support, as well as other psychosocial outcomes in heterosexual men with a history of substance use living with HIV/AIDS.

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SELF-EFFICACY AND HIGH-RISK PARTNER SELECTION: IMPLICATIONS FOR HIV PREVENTION

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Seventy-five percent of women’s HIV infections are through heterosexual contact, with poor, inner-city, minority women the most affected (CDC, 2004). However, even with the threat of HIV so ominous, many women do not choose to practice safer sex behaviors. Changing women’s high risk sexual behavior would significantly decrease their risk for HIV. Sexual behavior change is difficult because sexual decision-making often occurs in a dyad of unequally balanced power. Bandura’s learning theory (1990) posits that both risk perception and situational self-efficacy are necessary for behavior change to occur. Individuals must first believe that they are at risk, and then must believe that they have the skills to reduce their risk. Therefore, the current research investigates a behavioral intervention that aims to decrease sexual risk taking behaviors by increasing self-efficacy and perceptions of individual and community risk. Seventy-one percent of other inner city women underwent either a standard HIV information program or the Generalized AIDS Competency (GAC) Program. The GAC program was designed to increase the independent measures (generalized and situation specific self-efficacy, individualized and community perceived risk) through use of skill acquisition (condom use, sexual history taking, HIV education), whereas the standard care program offered HIV education only. Structural Equation modeling was used and resulted in a model with good fit. Results indicated that compared to the information only group, the GAC group 1) had higher self-efficacy scores, these scores in turn, led to 2) increase in perceived individual and community risk which led to 3) increases in condom use in the past 2 months at 6 month follow-up.

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POSTTRAUMATIC STRESS DISORDER AND HIV-RISK BEHAVIOR IN AFRICAN IMMIGRANTS AND REFUGEES
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Previous research has demonstrated that traumatic experiences result in psychiatric morbidity and increased sexual risk behavior. The aims of the present study were to test a mediational model between trauma and sexual risk behavior with symptoms of depression and posttraumatic stress disorder as a possible mediating factor.

One hundred and nineteen immigrants and refugees from Africa were recruited for participation in the present study. The participants completed a comprehensive interview that included the Harvard Trauma Questionnaire, Hopkins Checklist, PTSD scale, and a sexual history questionnaire that included number and types of partners and condom use.

Using regression analysis, the association between traumatic events and sexual risk behavior with psychiatric symptoms as a possible mediator was tested. The model was supported in that the associated between traumatic events and percentage of condom use with three types of sex partners (regular, casual, and commercial) was mediated by symptoms of posttraumatic stress disorder.

Interventions designed to prevent HIV in immigrant and refugee populations should focus on the identification and treatment of PTSD as well as traditional HIV behavior change strategies.

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YOUNG ADULTS’ STD RISK PERCEPTIONS: LINK TO LOW SELF-EFFICACY AND SEX-RELATED CONCERNS BUT NOT SEXUAL RISK BEHAVIOR
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Prominent conceptual formulations of sexual risk behavior cite perceptions of disease susceptibility as a necessary precursor to risk reduction. However, many adolescents who engage in high-risk behavior misperceive their risk for contracting STDs relative to lower risk youth. The current study examined the relationship of STD risk perceptions to sexual risk history and related antecedents of risk behavior among sexually active teens and young adults (∏ = 272; Mage = 18.9). Participants completed a self-report questionnaire assessing sexual health knowledge, attitudes, and behavior. Overall, participants assessed their risk for acquiring an STD (∏ = 1.7 of a possible 6) and HIV (∏ = 1.3 of a possible 6) to be very low. Those who reported higher perceived risk for STDs had greater concern for adverse consequences of sexual behavior (e.g., unintended pregnancy, relationship strain), (2, 270) = 5.3, p < .01, and reported lower levels of self-efficacy for condom use, (2, 270) = 2.62, p < .01. Perceived risk for STDs was not associated with HIV or STD knowledge; further, risk perceptions did not differentiate between participants reporting high versus lower risk sexual activities in the past six months and for the most recent sexual encounter. Findings indicate that STD risk perceptions are related to decreased condom use self-efficacy and increased concern for negative outcomes related to sexual behavior, but not related to differential levels of maladaptive health behaviors. Thus, sexual health interventions should encourage accurate risk perceptions, but also provide requisite behavioral skills required to achieve lasting behavior change.

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HOPE, HEALTH PERCEPTION, AND UNSAFE SEX IN RELATION TO SELF-EFFICACY IN HEALTH MANAGEMENT AMONG HIV+ ADULTS USING COMPLEMENTARY/ALTERNATIVE MEDICINE
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This study examined a sample of 40 gender balanced HIV+ adults to uncover associations between hopefulness, health perception, unsafe sex and self-efficacy for managing chronic disease. The majority (65%) of participants reported their ethnicity as African American, with 30% European American and 5% Latino. Participants were recruited from AIDS service organization in the Dallas/Fort Worth Metropolitan and enrolled in a larger study that examined complementary and alternative medicine usage in the HIV population.

Each participant completed demographic and medical surveys as well as measures that assessed hopefulness (Hope), health perception (MOS-HIV) and self-efficacy in health management (Self-Efficacy for Managing Chronic Disease). Additionally, a sexual behavior questionnaire was administered to assess risky sexual behaviors.

A multiple regression analysis was conducted to determine differences in health perception (t = 2.30, p < .05) and hopefulness (t = 3.11, p < .01) on future health perceptions and self-efficacy for managing chronic disease increased. Our model [adjusted R² = .44, F (3,36) = 10.71] explained 44% of the variance accounted for in self-efficacy. Our findings suggest that if we provide ways to improve hope in achieving personal goals, health perceptions, and encourage safer sex practices, self-efficacy vis a vis chronic disease management may improve.

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ADOLESCENT FRIENDSHIPS AND DIABETES
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Friendship formation and development is an important aspect of adolescence. However, little research has examined the friendships of adolescents with chronic illness. In this study, we interviewed 132 early adolescents with Type 1 diabetes and 131 healthy controls (all ages 10-12). We compared friendships of adolescents with diabetes to healthy adolescents’ friendships on five domains: intimacy, emotional support, instrumental support, dominance, and conflict. Boys with diabetes experienced low levels of intimacy and emotional support compared to girls with diabetes and healthy adolescents. Healthy boys showed marginally more dominance in their friendships than did the others. We next examined the relation of the friendship domains and their interactions with health status on psychological outcomes. In general, positive aspects of friendship were associated with positive outcomes for all adolescents (e.g., emotional support from friends was associated with fewer difficulties at school, less anger, more self-worth, and more social competence) and negative aspects of friendship were associated with negative outcomes (e.g., conflict was associated with more difficulties at school and more anger). Some interesting marginal interactions also emerged. For adolescents with diabetes but not healthy adolescents, instrumental support from friends was associated with adaptive skills. For healthy adolescents, but not adolescents with diabetes, intimacy was associated with more behavioral problems. This raises the possibility that aspects of friendship serve different roles for chronically ill adolescents. Finally, we examined the relation between domains of friendship and diabetes outcomes. Instrumental support from friends was associated with worse metabolic control, dominance was associated with worse diabetes quality of life, and none of the aspects of friendship were associated with self-care behavior or hypoglycemic episodes.

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PERCEIVED CONTROL, COPING, AND HEALTH IN TYPE 2 DIABETES

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Diabetes is an objectively controllable disease in which many of the symptoms and subsequent complications can be prevented and/or controlled with behavioral modifications. While some patients succeed in making necessary lifestyle changes and manage their diabetes with little trouble, others do not and instead deteriorate and suffer debilitating consequences. In a test of the goodness of fit hypothesis, which asserts that the effectiveness of coping will vary as a function of the extent to which an event is perceived as controllable, the current study examined the roles of perceived control (PC), coping, and health in 69 adults (31 men, 38 women) with type 2 diabetes. It was hypothesized that PC would moderate the relationships between coping and health outcomes (i.e., psychological distress, HbA1C, self-reported physical health) such that for people with high PC, problem-focused coping (PFC) would result in better health, and for individuals with low PC, both PFC and emotion-focused coping (EFC) would result in poorer health due to the mismatch between the perceived controllability and the actual controllability of type 2 diabetes. Regression analyses revealed that PC moderated the relationships between (a) EFC and psychological distress (PC*EFC $\beta = -.21, p = .05$) and (b) health behavior (HB) and psychological distress (PC*HB $\beta = .31, p = .05$). Results provide partial support for the goodness of fit hypothesis. Perceived control over the disease is an important factor in determining the effect of coping on health. Not all coping efforts are successful. Rather, it appears that some of the potential salutary effects of coping may depend on one’s perceived control over the disease.

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IMPACT OF SUPPORT GROUP ATTENDANCE ON PSYCHOSOCIAL FUNCTIONING FOR ADOLESCENTS WITH TYPE 1 DIABETES

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Social integration and social support have been demonstrated to positively impact physiological and psychological adjustment. This study examines the effect of attending support group sessions on psychosocial functioning of adolescents with Type 1 diabetes. Participants were 46 adolescents, mean age 15.9 years, 60% female, and 43% on pump therapy. Attendance was assessed at eight monthly support sessions, and questionnaires completed at 4-month intervals. Maximum likelihood regression was conducted using general estimating equations. Controlling for age, gender and treatment (pump vs. injections), teens who attended support groups were more capable of disclosing diabetic status ($B=1.26, p=.057$), and viewed diabetes as more central to social identity ($B=7.094, p=.011$). Teens who did not attend support groups felt more capable of seeking support, and were more aware of knowledge limitations ($B=-.461, p=.060$) about diabetes and motivations for adherence ($B=-.31, p=.076$). Attendance moderated the effect of treatment on psychosocial factors. Among teens on pump therapy, attendance had a larger effect on diet self-efficacy ($B=2.345, p=.017$), diet support ($B=11.61, p=.052$), social identity ($B=14.16, p=.019$), disclosing diabetic status ($B=2.88, p=.014$), and managing highs and lows ($B=-9.90, p=.042$) compared to teens using injections. However, there was a larger effect of attendance on support seeking ($B=1.68, p<.001$) among teens who used insulin injections compared to pump therapy. Attendance also moderated the effect of gender. Attendance had a larger effect on medical decision self-efficacy ($B=-7.438, p<.001$) and motivations for adherence ($B=9.21, p<.001$) among males and a larger effect on coping with diabetes-related stress ($B=9.94, p=.024$) among females. These findings indicate that support group attendance is associated with adjustment to relational and adherence aspects of diabetes.

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CHANGES IN FUNCTIONING FOLLOWING A PSYCHOSOCIAL INTERVENTION FOR ADOLESCENTS WITH TYPE 1 DIABETES

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46 adolescents with insulin dependent diabetes mellitus (IDDM) attended an intervention designed to increase efficacy in managing diabetes and peer support. Teens completed questionnaires assessing self-efficacy, self-esteem, and social support immediately following the intervention and at four-month intervals. Teens were M=15.9 years old, 60% female, and 43% used pump therapy. After eight months, a repeated measures ANOVA found two-way interactions between time and age for medical decision self-efficacy ($F=4.524, p<.022$) and support for insulin/glucose testing ($F=6.853, p=.004$). Paired t-tests comparing time points found that medical decision self-efficacy remained stable for older, while decreasing for younger teens. In contrast, support for insulin/glucose testing increased for younger and decreased for older teens. Analyses found a three-way interaction between time, gender and treatment (injections vs. pump) for insulin ($F=10.117, p<.001$), exercise ($F=3.919, p<.034$), and emotional ($F=5.718, p<.009$) support. In general, males using pump therapy reported increased support, while support for females using pump therapy and injections remained stable. Insulin and exercise support decreased for males using injections. This three-way interaction was also found for self-efficacy in insulin/glucose testing ($F=4.052, p<.03$), medical decision ($F=3.919, p<.034$) and self-esteem ($F=4.789, p<.018$). Insulin/testing self-efficacy remained stable for males and females on pump therapy and females using injections, but increased for males using injections. Medical decision self-efficacy remained stable for females on injection and pump therapy, while increasing for males on injection and decreasing for males on pump therapy. Self-esteem increased for males using injections and pump therapy and females using pump therapy, remaining stable for females using injections. These findings indicate the importance of gender and treatment factors in predicting psychosocial functioning following interventions.

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ACCURACY IN THE DISCRIMINATION OF BLOOD GLUCOSE LEVELS (BGL) AND RESPONSES TO THE SYMPTOMS RELATED TO THE BGL IN A SAMPLE OF DIABETES TYPE 1 CHILDREN

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The present study explores the accuracy in the discrimination of BGL in children with diabetes type I and analyze the type of symptoms or cues the subjects were based on to estimate their BGL. Moreover, the study attempts to know the responses to symptoms indicating low or high BGL. 42 diabetes type I children completed a SFIC-3 scale, indicating which symptoms and mood state they perceived in that moment and the intensity of them. Then they estimate their BGL levels, indicating the reasons of their estimation, before the actual accomplishments of their glucose in blood analysis (GBA). As well, the subjects filled up a questionnaire about symptoms related to BGL. The results show a great variability in the estimation of the BGL, failures in the correct discrimination of hypoglycemic symptoms, the presence of false beliefs about hyperglycemic symptoms, and about the absence of symptoms as indicators of normoglycemia. The correct use of external signals is related to the actual estimations of the normal, hypoglycemic and hyperglycemic states.

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THERAPEUTIC WRITING INTERVENTION (TWI) AND EMOTION EXPRESSION IN TYPE 2 DIABETES

Ronda Renosky, B.A.,¹ Cheryl Dellasega, Ph.D.,² Laura Klein, Ph.D.,¹ Jan Ulbrecht, M.D.,¹ Mosak Chow, Ph.D.,³ Rachel Ceballos, M.S.,¹ and Josh Smyth, Ph.D.⁴

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Emotion expression through TWI can have positive effects on well-being and physical function in certain illnesses. This pilot double-blind RCT sought to determine if adults with poorly controlled (HbA1c>7.5%) Type 2 diabetes (T2DM) would also benefit from TWI. Treatment group (TxG, n=8, 2 female) wrote for 20 minutes/day, 4 consecutive days about stressful event(s), while controls (n=7, 2 female) wrote about emotionally neutral topics. Multiple psychological measures, self-care, glycemic control, and waking salivary cortisol levels were assessed at baseline, +1, +4, and +10 weeks post-intervention. Participants were age 54–79, mean duration of T2DM 12 years, Beck Depression Inventory mean 7.5(SD±6.2). TWI increased immediate negative affect in TxG (PANAS TxG/control after writing, p<0.01). No effect on glycemic control was observed post-intervention, but the TxG perceived a significant increase in family support (p<0.02). Cortisol levels were not statistically different at baseline or weeks +1 and +10, but at +4 weeks TxG had significantly higher levels than controls (p<0.01). Women in the TxG had higher cortisol levels than men at +4 weeks (p=0.05), but not at baseline. This pilot study showed promising psychological effects of TWI and no adverse consequences to participants. The cortisol data (to our knowledge not previously reported in TWI research) supports the hypothesis that TWI facilitates resolution of stress through cognitive and emotional processing, with the stress response first elevated, and after resolution, decreased (with possible gender differences).

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COMING TO TERMS WITH PROSTATE CANCER: THE ROLE OF SOCIAL SUPPORT

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¹Health & Behavior Studies, Teachers College, Columbia University, New York, NY; and ²Psychology, Carnegie Mellon University, Pittsburgh, PA.

This study examined whether social support might enhance health-related quality of life in 89 men treated for localized prostate cancer by improving their ability to cognitively process, or “come to terms with,” their cancer. Participants were interviewed near their treatment date (T1) and again nearly three months later (T2) to assess the independent variables (level of social support from family and friends and two indicators of coming to terms with cancer, level of intrusive thoughts and searching for meaning) and health-related quality of life (mental and physical functioning subscales on the SF-36). T1 social support was positively related to both of the T1 indicators of coming to terms with cancer (p<0.01) and positively related to T2 mental functioning (p<0.05). Mediation analyses suggested that the degree to which participants had come to terms with their cancer accounted for the association between social support and mental health. Specifically, greater social support was associated with lower levels of intrusive thoughts and searching for meaning which, in turn, were associated with a higher level of mental health. These findings suggest that supportive social relations may improve mental functioning by helping men to come to terms with their prostate cancer. (Supported by National Institutes of Health Grant CA68354.)

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PSYCHOLOGICAL AND MEDICAL IMPACT OF INSULIN OMISSION IN WOMEN WITH TYPE 1 DIABETES

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Women with diabetes are at increased risk of developing eating disorders. Intentional insulin omission to lose weight is a symptom that increases the risk of serious medical complications. To understand the prevalence and impact of insulin omission over time, we re-evaluated 208 type 1 diabetic women studied eleven years ago (age=44±13; duration=28±1; 97% Caucasian). At baseline and follow-up, participants completed the Problem Areas in Diabetes scale, the Brief Symptom Inventory, the Self-Care Inventory, and a questionnaire on health status, eating patterns, and insulin use. At baseline, women omitting insulin (n=40) had higher HbA1c’s (9.8±1.1% vs. 8.5±1.5%, p<0.001); more diabetes distress (71±27 vs. 40±18, p<0.01); depression (58±11 vs. 53±10, p<0.01), and global psychiatric symptom severity (60±11 vs. 55±10, p=0.001) and reported less self-care behaviors (51±19 vs. 66±17, p<0.001) than non-omitters. At follow-up, both groups improved. However, omitters continued to endorse more diabetes distress, anxiety, self-care frustration, and less self-care behaviors than non-omitters. They no longer differed on global psychiatric symptom severity. Omitters had higher death rates (10% vs. 5%) and died younger (43±9 vs. 59±8 years, p=0.0003) than non-omitters. The number of complications did not differ between groups and HbA1c levels remained higher for insulin ommitters (8.6±1.1 vs. 7.8±1.3, p=0.0025). These finding highlight the detrimental impact of insulin omission on long-term health of women with diabetes. Targetted interventions for this at-risk population are urgently needed.

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The objective was to examine relationships between measures of pain and fitness. A secondary analysis of data from a study on PA in persons with osteoarthritis (OA) of the knee was performed. Data on one week of walking were concurrently assessed by pedometers and diaries. Cardiorespiratory fitness was measured by a maximum graded exercise test (GXT) performed on a treadmill. Functional fitness was measured by 6-minute walk, 4-meter walk, standing balance, and chair stands. There were 10 female volunteers with mean age of 66.4 years (SD=7.3). Fifty percent of the subjects were married and employed. On average, subjects reported having OA for 17.7 years (SD=13.6). On average, subjects walked 4,844 steps/day (SD=3,156) and self-reported walking 84 minutes/week (SD=120). There was no significant relationship between walking measured by pedometers and diaries (Spearman’s r=25, p>.05). Walking measured by pedometers was highly correlated with metabolic equivalent (r=.77, p=.015) and duration walked during GXT (r=.77, p=.016), 6-minute walk (r=.70, p=.038), and a composite score of the 4-meter walk, standing balance, and chair stands (r=.78, p=.014), but not heart rate (r=.37, p>.05) and rating of perceived exertion (r=.37, p>.05) during GXT. Walking measured by diaries was not significantly related to the fitness measures (r=.30 -.15, p>.05). Two measures of walking yielded different relationships with fitness, which should be considered when choosing measures.

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Symposium #20A

RELATIONSHIPS BETWEEN FITNESS AND WALKING MEASURED BY PEDOMETERS AND DIARIES

Elizabeth A. Schlenk, Ph.D., R.N.,1 Kent Kwoh, M.D.,2 Jennifer Lias, M.P.T.,2 Bret Goodpaster, Ph.D.,2 Donna Wolf, M.S.,1 and Susan Sereika, Ph.D.

1School of Nursing, University of Pittsburgh, Pittsburgh, PA; and 2School of Medicine, University of Pittsburgh, Pittsburgh, PA.

The objective was to examine relationships between measures of fitness and walking. A secondary analysis of data from a study on physical activity and fitness in persons with osteoarthritis (OA) of the knee was performed. Data on one week of walking were concurrently assessed by pedometers and daily diaries. Cardiorespiratory fitness was measured by a maximum graded exercise test (GXT) performed on a treadmill. Functional fitness was measured by 6-minute walk, 4-meter walk, standing balance, and chair stands. There were 10 female volunteers with mean age of 66.4 years (SD=7.3). Fifty percent of the subjects were married and employed. On average, subjects reported having OA for 17.7 years (SD=13.6). On average, subjects walked 4,844 steps/day (SD=3,156) and self-reported walking 84 minutes/week (SD=120). There was no significant relationship between walking measured by pedometers and diaries (Spearman’s r=25, p>.05). Walking measured by pedometers was highly correlated with metabolic equivalent (r=.77, p=.015) and duration walked during GXT (r=.77, p=.016), 6-minute walk (r=.70, p=.038), and a composite score of the 4-meter walk, standing balance, and chair stands (r=.78, p=.014), but not heart rate (r=.37, p>.05) and rating of perceived exertion (r=.37, p>.05) during GXT. Walking measured by diaries was not significantly related to the fitness measures (r=.30 -.15, p>.05). Two measures of walking yielded different relationships with fitness, which should be considered when choosing measures.

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Symposium #17A

RELATIONSHIPS BETWEEN PAIN AND PHYSICAL ACTIVITY, FUNCTION, AND FITNESS

Discussant: Jacqueline Dunbar-Jacob, Ph.D., University of Pittsburgh

The objective was to examine relationships between measures of pain and physical activity (PA), function, and fitness. A secondary analysis of data from a study on PA in persons with osteoarthritis (OA) of the knee was performed. Pain was assessed by WOMAC Pain subscale and SF-36 Bodily Pain (BP) subscale. PA was assessed by pedometers, diaries, and Modifiable Activity Questionnaire (MAQ). Function was measured by WOMAC Function subscale and SF-36 Physical Function (PF) and Role-Physical (RP) subscales. Physical fitness was measured by maximum graded treadmill exercise test (GXT). There were 18 volunteers, 17 of which were women, with mean age of 64.7 years (SD=10.0). Subjects were mostly white (83%), married (67%), and unemployed (72%). On average, subjects had OA for 10.2 years (SD=11.5). There were significant relationships between WOMAC Pain and MAQ past year MET-hours/week (r=.625, p=.003) and MAQ past week MET-hours/week (r=.419, p=.042), but not between WOMAC pain and PA measured by pedometers and diaries. There were no significant relationships between SF-36 BP and PA measures. WOMAC Pain and SF-36 BP were highly correlated with WOMAC Function (r=.666, p=.001; r=.504, p=.017) and SF-36 RP (r=.549, p=.009; r=.870, p=.0001); only WOMAC Pain was highly correlated with SF-36 PF (r=.558, p=.008). WOMAC Pain and SF-36 BP were significantly related to rating of perceived exertion (r=.484, p=.021; r=.646, p=.002), but not metabolic equivalent during GXT. These associations suggest that knee pain is a barrier to PA and knee and bodily pain are barriers to function.

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Symposium #17A

PAIN, SLEEP, AND DEPRESSION IN RHEUMATOID ARTHRITIS

Jacqueline Dunbar-Jacob, Ph.D.,1 Susan Sereika, Ph.D.,1 and Cameron Kramer, BSN,1

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Although pain is the primary symptom associated with rheumatoid arthritis (RA), the afflicted suffer from numerous other comorbid conditions. Patients with RA experience excess rates of sleep disturbance and depression. The confounding nature of these conditions may act as a barrier to appropriate and effective treatment. Of interest, are the rates with which these symptoms co-occur and how they interrelate. Data on sleep, depression and pain were gathered on 468 subjects with RA who completed the following instruments: The Center for Epidemiologic Studies Depression Scale, Pittsburgh Sleep Quality Index, Medical Outcomes Study Short Form-36 Health Survey, and selections from the Jette Functional Status Index and Illness Perception Questionnaire.

We first examined the areas in which pain impacted the person with RA. Principle component analysis yielded a three-factor solution that accounted for 67.6% of the variance. All items loading on the three factors that were greater than .60 were included. The 3 factors were interpreted as pain associated with: lifestyle activities, participating in social activities, and fine motor activities.

Fifty-seven percent of the sample scored as depressed, while 59% indicated having poor sleep quality. Forty-one percent of the total sample had both depression and poor sleep quality. Analyses revealed significant correlations between depressive symptoms, sleep quality, and pain. Linear regression analysis demonstrated that pain predicted depression with sleep quality mediating the relationship. These relationships indicate the need for further longitudinal analyses with the goal of determining the direction of influence between these symptoms. This research has implications for preventive care and intervention development for patients with RA.

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PAIN, SLEEP, AND COGNITIVE FUNCTION IN RHEUMATOID ARTHRITIS
Jacqueline Dunbar-Jacob, Ph.D.,1 Susan Sereika, Ph.D.,1 Daniel Buysse, M.D.,2 and Carol Stilley, Ph.D.1
1School of Nursing, University of Pittsburgh, Pittsburgh, PA; and 2School of Medicine, University of Pittsburgh, Pittsburgh, PA.

Research on pain, sleep and cognitive function supports the impact of pain and sleep on attention, concentration, and psychomotor speed; less is known about pain, sleep and memory. Little is known about congruence of self-reported and observed memory or if the impact of pain and sleep on cognition differs with methodology. We examined relationships between pain, sleep, and self reported cognitive function in 639 adults with Rheumatoid Arthritis. The MOS SF36 Bodily Pain Scale and RADAR were used to assess pain. Sleep was measured with the Pittsburgh Sleep Quality Index; perceived memory was assessed with the Everyday Memory Questionnaire. Fifteen subjects completed comprehensive neuropsychological testing. Body and joint pain were correlated with sleep quality, latency, and duration (p<.01) and with perceived memory (p<.01). Perceived memory was correlated with sleep quality (p<.029). Joint pain (p<.031) and sleep quality (p<.009) predicted memory dysfunction in hierarchical regression analysis. Five of 15 subjects were impaired on tests of verbal memory, two were impaired on spatial memory; there was no relationship between perceived and observed verbal or spatial memory. Neither body nor joint pain nor sleep was significantly related to neuropsychological test performance. Self-reported levels of pain and sleep do impact on perceived memory but not on observed memory. This study illustrates differences between self-reported and objectively measured cognitive function which is particularly relevant for patients having difficulty managing their treatment regimens.

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Symposium #18C

UNCOVER THE BARRIERS AND DISCOVER THE FACILITATORS: AFRICAN AMERICAN WOMEN’S PARTICIPATION IN RESEARCH STUDIES

Georita M. Frieson, Ph.D.,1 Linsdey West, Ph.D.,2 Shannon Moore, B.A.,3 and Bernadine Pinto, Ph.D.1

1Centers for Behavioral and Preventive Medicine, Miriam Hospital/Brown Medical School, Providence, RI; 2Clinical Psychology, Jackson State University, Jackson, MS; and 3Psychology, Brown University, Providence, RI.

African American women are .005% of the 3% of American women who participate in clinical trials. The barriers and facilitators for African American women to participate in many types of research studies are still nebulous. Women participated in focus groups (“Bringing the Gap”) and completed a medical-socio-demographic questionnaire that addressed their gynecological/breast health behaviors, perceptions about research, and facilitators and barriers to participate in psychosocial and behavioral cancer studies. To date, thirty-nine women (mean age=48 years old, SD=12.52, range=19-67 years old) have participated in 7 focus groups. Seventy-six percent of the sample self-reported being African American/Black, Cape Verdian (10.5%), or African decent (5.3%). Sixty-six percent performed breast self examinations, but 16% percent of this group performed them once a month. All women 40 years old and older (80% of the sample) reported receiving a mammogram. Twenty women (53%) noted participating in previous research studies. Eighty-seven percent of the participants reported that their gynecologist never asked them to participate in a study. Only 8% of the sample (3 women) reported that their primary care physician asked them to participate in a study. Traditional barriers such as mistrust and lack of knowledge of research studies were discussed in addition to non-traditional barriers. Culturally appropriate recruitment strategies emerged when discussing facilitators during the focus groups. These findings reveal a sense of optimism with regards to increasing the representation of minority/underserved populations, specifically African-American women in behavioral and psychosocial cancer studies.

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Symposium #19 8:30 AM–10:00 AM

WHAT IS BEHAVIORAL INFORMATICS?

Discussant: Robert Friedman, M.D., Boston University

Behavioral Informatics (BI) is a new scientific discipline, having been recognized as a SIG in SBM since 2002. BI involves the study of the use of information technologies (informatics) in behavioral medicine. This is a growing field, yet there are questions about its body of knowledge, its salient research questions, its practitioners, and its future development. Dr. Houston will begin with a history of the BI SIG and describe its membership and the BI research participating in previous research studies. Eighty-seven percent of the participants reported that their gynecologist never asked them to participate in a study. Only 8% of the sample (3 women) reported that their primary care physician asked them to participate in a study. Traditional barriers such as mistrust and lack of knowledge of research studies were discussed in addition to non-traditional barriers. Culturally appropriate recruitment strategies emerged when discussing facilitators during the focus groups. These findings reveal a sense of optimism with regards to increasing the representation of minority/underserved populations, specifically African-American women in behavioral and psychosocial cancer studies.

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Symposium #19A

BEHAVIORAL INFORMATICS: A PERSPECTIVE FROM THE SBM BEHAVIORAL INFORMATICS SIG

Thomas K. Houston, M.D. M.P.H.1

1Department of Medicine, University of Alabama at Birmingham, Birmingham, AL.

The Behavioral Informatics Special Interest Group began as a discussion between three SBM members, Rob Friedman, Tom Houston, and David Ahern at the 2002 meeting. The SIG was developed to foster communication about the increasing integration of behavioral science and informatics. The SIG currently has 30 members, and serves as a forum for members of the Society of Behavioral Medicine with an interest in the impact of information and communication technology on health behavior outcomes and processes. Our working definition of “Behavioral Informatics” incorporates the study of the use of these technologies by patients and health care providers as well as the design, implementation, and evaluation of behavior change interventions delivered through advanced technologies. We consider behavioral informatics to be a developing, multidisciplinary field. As technology becomes increasingly pervasive and more accessible to the population, we believe that “Behavioral Informaticists” will be increasingly in need. As an introduction to the Behavioral Informatics Symposium, Dr. Houston will focus on 1) definitions of behavioral informatics, 2) the brief history of the SIG, 3) examples of research of SIG members, and 4) some general themes of challenges in intervention design, participant recruitment, and evaluation discussed at the SIG meeting and through the listserve. We will review the controversy among the membership regarding the definition of Behavioral Informatics, and will briefly explore the wide variety of interventions underway by SIG members including voice response systems, Internet-delivered applications, and health-related educational computer games.

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Symposium #19B

BEHAVIORAL INFORMATICS: A PERSPECTIVE FROM BEHAVIORAL MEDICINE

Beth Bock, Ph.D.1

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The purpose of this presentation is to review, in a broader sense, the field of Behavioral Informatics, its current status and the types of research inquiries as they appear from the published work and work currently in-progress of behavioral scientists (especially work being conducted by members of SBM). In the past decade, there has seen widespread adoption of these technologies across different socioeconomic and demographic groups together with an exponential expansion of capability and interconnectivity between technology platforms. This situation has created vast opportunities for providing behavioral interventions and conducting research examining health behavior change mechanisms using new technologies. Consequently the field of Behavioral Informatics has grown dramatically in recent years. This growth is evident in the number and quality of research abstracts presented at SBM each year. This presentation will discuss the type of work being done by behavioral medicine researchers across a broad range of scientific inquiry that currently compromises “behavioral informatics.” These areas include investigations of measurement and methodological issues, as well as applications in prevention, treatment and disease management among others. While creating new opportunities, we are also faced with new questions: Can RCTs be reliably conducted using new channels like the Internet? What kind of behaviors are most amenable to intervention through technology? What are the ethical issues of providing behavior therapy and interventions via remote technologies? This session will conclude with a discussion about the direction in which the field is headed and questions being posed by recent research.

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Symposium #19C

BEHAVIORAL INFORMATICS: A PERSPECTIVE FROM INFORMATICS

Timothy W. Bickmore, Ph.D. 1

1Medical Information Systems Unit, Boston University School of Medicine, Boston, MA.

The field of computer science continues to develop new technologies that are relevant to behavioral medicine, especially in the areas of natural language processing, sensing systems and human-computer interaction. Dr. Bickmore will present recent examples of work in these areas, including: wearable systems that automatically detect important patient behavior and intervene at the point of decision-making; animated health advisor characters that emulate the verbal and nonverbal behavior of counselors in face-to-face interaction with patients; and role-playing games in which patients can work through problem scenarios by controlling an animated character. In addition to enabling such new interventions, computer science can also make significant contributions to behavioral medicine by providing behavioral scientists with tools that can provide new mechanisms for testing theories, and enabling new kinds of research questions to be asked. Dr. Bickmore will discuss conversational agents that vary verbal and nonverbal behavior over multiple patients interactions, which can be used to test theories of nonverbal behavior in face-to-face counseling or the dynamics of therapeutic alliances over time. He will also discuss research in representing behavioral theories in computers, enabling intervention messages to be dynamically synthesized and tailored, and permitting the direct comparison of different behavioral theories. Finally, he will discuss how computer science and behavioral medicine can collaborate to develop new interventions that are more effective than those that could be produced by either discipline alone.

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Symposium #20A

TRANSPARENT REPORTING OF EVALUATIONS WITH NON-RANDOMIZED DESIGNS: THE TREND STATEMENT

Cynthia M. Lyles, PhD, Don C. Jarlais, PhD, Linda S. Kay, MPH, Nicole Crepaz, PhD, Jeffrey H. Herbst, PhD, Warren Passin, MPH, MSW, Sima Rama, MPH, Angela Kim, MPH, and for the TREND Group.

1Centers for Disease Control and Prevention; and 2Baron Edmond de Rothschild Chemical Dependency Institute.

Evidence-based behavioral medicine and public health practice is defined as the use of the current best scientific evidence when making decisions about improving the care or health of an individual. This requires a systematic review of scientific evidence, including assessing its quality based on strict a-priori criteria. Behavioral prevention, in particular, aims to reduce individuals' risky (or increase protective) behaviors to prevent adverse health outcomes. The best available scientific evidence for behavioral prevention comes from evaluations of behavioral interventions. Unfortunately, many scientific publications reporting the findings of intervention evaluations lack critical information needed to adequately assess the quality of this evidence. While extensive efforts were made to improve the quality of reporting randomized controlled trials, the same has not been true for experimental designs not utilizing randomization. The TREND statement was recently published in the American Journal of Public Health to promote reporting standards for behavioral interventions with quasi-experimental designs. Many journals have since supported the TREND statement in various ways. In this presentation we will highlight major reporting gaps in the area of HIV/AIDS prevention research and present the TREND statement in detail. Improving the reporting standards of behavioral intervention research will greatly improve the systematic review process and the evidence-based recommendations that follow.

Symposium #20B

THE USE OF NON-RANDOMIZED DESIGNS IN THE EVALUATION OF BEHAVIORAL HEALTH INTERVENTIONS

Don C. Jarlais, PhD, Nicole Crepaz, PhD, Cynthia M. Lyles, PhD, Jeffrey H. Herbst, PhD, Linda S. Kay, MPH, and the HIV Prevention Research Synthesis Team.

1Centers for Disease Control and Prevention; and 2Baron Edmond de Rothschild Chemical Dependency Institute.

While randomized clinical trials (RCTs) are currently considered the “gold standard” for evaluating behavioral interventions, there are many situations in which it is not practical or not ethical to conduct an RCT. We will discuss a variety of evaluations with non-randomized designs (ENDs), from “almost RCTs” to “far from RCTs” (time series designs, case histories of structural-level interventions). We will also present empirical data on the frequency of RCTs and ENDs in the evaluation of HIV prevention programs for different groups, including drug users, MSM, youth, HIV positives, and adult heterosexuals. We will compare the average effect sizes of RCT and END studies within each group. Finally, we will address the question of generalizing from a single strong study (typically an RCT) versus generalizing from a research synthesis (often including ENDs). Generalizing from research syntheses requires a high level of uniform reporting of the individual studies.

Symposium #20C

HOW TO SYNTHESIZE EVIDENCE THAT IS NOT RANDOMIZED

Patricia Dolan Mullen, DrPH, Center for Health Promotion & Prevention Research, University of Texas School of Public Health.

One argument for designating RCTs as the gold standard in methodological design for intervention studies is the seemingly relative facility of summarizing across RCTs to come to conclusions about the efficacy of a particular intervention. During this talk I will explain how it is possible to synthesize across alternatives to RCTs in a way that capitalizes on the effectiveness that makes such trials attractive to community researchers. Examples of meta-analyses of quasi-experimental studies of behavioral medicine interventions will be used to illustrate these points.
Symposium #21A
PSYCHOLOGICAL EVALUATION OF THE BARIATRIC SURGERY PATIENT
Cara F. O’Connell, M.A., and J. Scott Mizes, Ph.D.

1Psychology, West Virginia University, Morgantown, WV; and 2Behavioral Medicine & Psychiatry, WVU School of Medicine, Morgantown, WV.

The prevalence of obesity in the United States and the various health-related complications associated with obesity underscore the importance of viable treatment options for obese individuals. Bariatric surgery may be an effective treatment option for the morbidly obese (BMI > 40). The National Institutes of Health (NIH) treatment guidelines recommend a psychological evaluation for all bariatric surgery candidates prior to surgery and many insurance companies require this evaluation prior to approving the procedure. Psychological variables, such as depression and binge eating disorder, may be associated with both obesity and post-surgical outcome, further underscoring the importance of a thorough evaluation. The psychological assessment of the bariatric surgery candidate, including the evaluation of current or past psychiatric disorders, as well as the patient’s previous medical history, knowledge of the procedure, and social support network, will be discussed. Additionally, the use of standardized objective testing, including the Millon Behavioral Medicine Diagnostic (MBMD), will be described. Guidelines will be provided to assist the mental health provider in formulating recommendations for bariatric surgery candidates, based upon psychological assessment and relevant clinical findings. Finally, psychiatric disorders and other assessment findings that may potentially preclude the provider from recommending bariatric surgery will be discussed.

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Symposium #21B
THE ROLE OF THE MENTAL HEALTH PROVIDER IN A MULTIDISCIPLINARY BARIATRIC SURGERY PROGRAM
Karen B. Grothe, M.A.,1,3 Jeffrey D. White, Ph.D.,1 Patricia M. Dubbert, Ph.D.,1,2 Brandie K. Taylor, M.A.,1,3 and Annette Low, M.D.1

1Mental Health, GV (Sonny) Montgomery VAMC, Jackson, MS; 2South Central VA Mental Illness Research, Education, & Clinical Center, Jackson, MS; and 3Psychiatry, University of Mississippi Medical Center, Jackson, MS.

Current treatment guidelines for patients considering surgical interventions for obesity recommend a mental health evaluation for all candidates. Mental health providers are getting called upon to perform these evaluations and frequently find themselves working in new and unfamiliar roles. As a result, they need to be able to work within a multidisciplinary team, frequently consisting of surgeons, physicians, dieticians, nurse practitioners, and physical therapists. Additionally, as behavior specialists, mental health providers may be called upon to provide services outside of the initial evaluation. In an effort to prepare providers for this unfamiliar role, this presentation will address issues and problems that mental health professionals should be familiar with when working with patients prior to and following obesity surgery. The final presentation will address issues and problems that mental health professionals should be familiar with when working with patients prior to and following obesity surgery. These can include: (1) practical issues (e.g., transportation difficulties for rural patients, scheduling patients in a multidisciplinary setting, etc.), (2) financial issues (e.g., lack of reimbursement for mental health evaluations/treatment), (3) medical/surgical issues (e.g., risks associated with surgery, need for adherence to lifelong medical follow-up), and (4) psychological issues (e.g., expectations/perceptions of surgery, adjustment to dramatic changes in physical appearance). A review of the current literature will be supplemented with empirical data collected from pre-surgical mental health evaluations. Additionally, first-hand experiences developing a bariatric surgery support group and preliminary work developing a more comprehensive assessment and triage approach to potential surgery candidates will be presented.

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Symposium #21C
PSYCHOLOGICAL FACTORS AND OUTCOME FROM OBESITY SURGERY
Matthew M. Clark, Ph.D.

1Psychiatry & Psychology, Section of Behavioral Medicine, Mayo Clinic, Rochester, MN.

The potential impact of psychiatric or psychological factors on post-surgical outcome is not well understood. Although it has been proposed that psychological factors are predictive of outcome, research in this area is limited. In this presentation, studies that have examined psychiatric factors and weight loss following surgery for obesity will be reviewed. Binge eating disorder, mood disturbance and potential positive aspects of obesity will be covered. Several models for suggestions of clinical guidelines to improve long-term outcome will be presented.


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S000 *Annals of Behavioral Medicine*

**Symposium #22** 8:30 AM–10:00 AM

**DISSEMINATING BEHAVIORAL MEDICINE RESEARCH: MAKING THE TRANSLATIONAL LEAP**

*Chairs: Laura Bayer Ph.D., Yale University & Dawn K. Wilson, Ph.D., University of South Carolina, Arnold School of Public Health, Columbia, SC.*

*Purpose:* The need to disseminate research findings has been identified as a necessary step in the evolution of behavioral medicine. Over the past 25 years, SBM members have made great strides in both sensitizing and gaining recognition and support from research and academic institutions for the value and importance of behavioral medicine. This symposium will address some of the challenges in disseminating research findings and translating research findings to implementation within clinical care and public health—yielding improved health outcomes.

This symposium is designed to stimulate thought about what is required for us as an organization and as individuals professionals in order to disseminate our work. Russell Glasgow, Ph.D. will provide a conceptual overview of issues related to dissemination of research findings. Redford Williams, M.D. will discuss his work as a model for how researchers can extend the reach of their findings through business models. Ken Resnicow will use the issue of obesity to discuss the movement from research findings of efficacy to effectiveness in application and dissemination. Tracy Orleans will serve as the discussant expanding the themes of the panelists and our role as SBM members in the larger societal context.

**CORRESPONDING AUTHOR:** Dawn K. Wilson, Ph.D., University of South Carolina, Arnold School of Public Health, Columbia, SC;

**Symposium #22A**

**CONCEPTUAL AND METHODOLOGICAL ISSUES IN RESEARCH DISSEMINATION**

Russell E. Glasgow, Ph.D.

Kaiser Permanente Colorado.

This presentation will set the stage for later talks by over-viewing some key conceptual and methodological issues in translational research. It will begin by discussing terminology and differences between diffusion, dissemination, replication, translation and translational research. The numerous challenges to dissemination and some of the reasons for the well-documented gap between research and evidence-based guidelines and practice will be summarized. I will then discuss some of the additional issues that are prominent in translational research that typically receive much less emphasis in efficacy trials. Among these issues are static versus adaptive interventions, participatory involvement, and tailoring vs. standardization. Special attention will be paid to issues of external validity and representativeness. Among the lessons learned that will be shared are that translation needs to be a) planned for from the outset and b) incorporated into study design, rather than an after thought following a successful efficacy trial. Finally, some promising models for guiding translational research including the RE-AIM framework and practical clinical trials models will be discussed, and suggested focal points for future research will be recommended.

**Symposium #22B**

**DISSEMINATING BEHAVIORAL MEDICINE RESEARCH: THE ROLE OF COMMERCIALIZATION**

Redford B. Williams, M.D.

Duke University Medical Center.

I have spent the greater part of my research career trying to identify psychosocial factors that increase the risk of cardiovascular disease and other medical disorders, as well as the underlying biobehavioral mechanisms that link psychosocial factors with disease. About fifteen years ago, I decided to try to translate the findings of this research—e.g., that a hostile personality style is toxic to one’s heart—into advice that disease. About fifteen years ago, I decided to try to translate the findings of this research and translating research findings to implementation within clinical care and public health—yielding improved health outcomes.

This symposium is designed to stimulate thought about what is required for us as an organization and as individual professionals in order to disseminate our work. Russell Glasgow, Ph.D. will provide a conceptual overview of issues related to dissemination of research findings. Redford Williams, M.D. will discuss his work as a model for how researchers can extend the reach of their findings through business models. Ken Resnicow will use the issue of obesity to discuss the movement from research findings of efficacy to effectiveness in application and dissemination. Tracy Orleans will serve as the discussant expanding the themes of the panelists and our role as SBM members in the larger societal context.

**Symposium #22C**

**TRANSLATING OBESITY AND DIABETES RESEARCH: SOME CHALLENGES & RECOMMENDATIONS**

Ken Resnicow, Ph.D.

University of Michigan.

Many treatment programs for obesity were developed and tested under efficacy conditions and their replicability under real world conditions remains unclear. Moreover, whereas the primary “gatekeepers” for obesity treatment are primary care physicians, many successful interventions were conducted by behavioral professionals. More research is needed to develop and test interventions that are designed for delivery by physicians who account for limitations of medical training, its implicit orientation, practice structure, and reimbursement guidelines.

A second approach would be to reconsider the role of behavioral professionals. Practice guidelines include referral to behavioral and/or dietetic counselors, yet access to these resources by community-based medical practices is unclear. Without such supportive services the impact of treatment may be considerably attenuated. Given the behavioral origins of the condition, perhaps we should consider a model that casts behavioral professionals as the first line in clinical care to be more consistent with the underlying etiology.

Perhaps like cancer, obesity should be considered not as one disease but a rubric of many diseases. The reasons for energy imbalance can be highly variable across individuals, and treatment programs can be better tailored to these individual differences. For example, excess caloric intake could be due to consuming high fat foods. For some “high-fat” food consumers, excess caloric intake could be attributed to one or two foods, while for others to a variety of foods. Tailoring could address the variety of eating and activity patterns among obese individuals.

In summary, this presentation argues for recasting obesity as a behavioral rather than medical condition with behavioral professionals as the frontline interventionists. In addition, recasting obesity as a cluster of heterogeneous conditions may increase dissemination of behavioral interventions and improve treatment effectiveness.

**Symposium #23** 8:30 AM–10:00 AM

**TOWARD A BETTER UNDERSTANDING OF “MEANING” AND “BENEFIT FINDING” FOLLOWING A CANCER DIAGNOSIS: REVISITED... AGAIN**

*Discussant: Crystal Park, Ph.D., University of Connecticut*

Past research in the area of psycho-oncology has largely focused on the negative consequences associated with a diagnosis of cancer. However, there is a growing literature that shows people seek to make sense of trauma and that some people derive benefits. Our first two symposiums established a distinction between the search for meaning and benefit finding following a cancer diagnosis and examined predictors and outcomes of personal growth among individuals with cancer. The purpose of the current symposium is to examine more closely what it means when individuals report deriving benefits from trauma. Dr. Revenson will explore how interpersonal factors, such as social resources, may shape growth outcomes. Dr. Lechner will show that some inconsistencies in the literature regarding relations of benefit finding with psychological outcomes may be due to non-linear associations. Dr. Tomich will present results from a theory-building experimental study that shows benefit finding may be a means of reducing cognitive dissonance. Finally, Dr. Park will address the potential impact of these findings for clinical practice and future research efforts that focus on enhancing quality of life among cancer survivors.

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Symposium #23A

FEARS OF RECURRENCE, SOCIAL RESOURCES, AND BENEFIT FINDING AMONG A SAMPLE OF BREAST CANCER SURVIVORS

Tracey A. Revenson, Ph.D. 1 Ronni M. Greenwood, M.A. 1 and Anne Gancarz, B.A. 1

Department of Psychology, City University of New York Graduate Center, New York, NY.

Individuals confronted with serious illnesses find benefits in their experience, including deepened relationships, enhanced spirituality, and increased life purpose. Recently, questions have been raised about the mechanisms through which growth outcomes are achieved. We explored how interpersonal factors shape growth outcomes, using LePore’s (2001) social-cognitive theory of adjustment, in a longitudinal study of women with early-stage breast cancer followed from completion of medical treatment (n=169) to 1 year (n=101) and 3 years (n=90) later. Fears of cancer recurrence, intrusive thoughts, received support, and social constraints were assessed at Time 2, and benefit-finding and post-traumatic growth at Time 3. Using moderated regression analyses, there were direct, positive effects for Network Support (β=.47) and Disclosure (β=.34, p<.02) on Benefit-Finding two years later, as well as a significant interaction between fears of recurrence and network support (p<.03). For women with fewer fears of recurrence, network support was associated with greater benefit-finding. When partner support was high, women with fewer fears of recurrence reported greater post-traumatic growth than those with higher fears of recurrence, but even those with high fears evidenced much more growth than women with low partner support. There was also a main effect of disclosure on growth (β=.35), but no effects for network support. Similar findings were obtained when intrusive thoughts replaced fears of recurrence in the regression equations. The results for social constraints were equivocal. The findings suggest that social resources do play a role in post-traumatic growth, but that their effects are context-dependent.

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Symposium #23B

DOES BENEFIT FINDING PREDICT OUTCOMES IN BREAST CANCER: REPLIATION AND EXTENSION

Suzanne C. Lechner*, Ph.D. 2 Michael H. Antoni, Ph.D. 1 Kathryn Weaver, M.A. 1 and Charles S. Carver, Ph.D. 1

Following a cancer diagnosis, some individuals report positive growth in the form of changed perceptions of life priorities, improved relationships, and increased resilience, referred to as benefit-finding (BF). Most studies show that BF is related to better psychological outcomes; however there are inconsistencies in the literature. We hypothesized that one plausible reason for such discrepancies is that the relationship between BF and outcomes is not a linear association. We tested whether the relationship between BF (Benefit-Finding Scale) and a) quality of life (FACT-B), and b) distress (Affect Balance Scale: positive and negative mood composites) was quadratic (i.e., U-shaped curve). Women with early stage breast cancer (n=143) were assessed within 8 weeks of surgery, at 6-months (T2), and at 1-year follow-up (T3). Women were primarily Caucasian (77%), married (74%), well-educated (62% college graduate), middle aged (mean=52.09). Curvilinear multiple regression analyses indicated significant quadratic equations for positive mood (all p<.01, all Rsq>.10), QOL at T1 and T2 but not T3 (T1 p<.05, Rsq =.06; T2 p<.05, Rsq =.10; T3 p>.05, Rsq=.03), and no effects for negative mood indices (p>.05). Latent growth curves modeling revealed good fit for relationships between quadratic change in BF and the quadratic slope over time for quality of life, positive mood and negative mood. Results indicated that change over time in BF and outcomes are both curvilinear (i.e., do not form a straight line), and thus traditional linear analyses may not capture the dynamic nature of these associations.

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Symposium #23C

BENEFIT FINDING: ANOTHER MEANS OF DISSONANCE REDUCTION?

Patricia L. Tomich, Ph.D., 1 Erin J. Nowak Vache, M.A., 1 and Vicki S. Helgeson, Ph.D. 1

After a stressful event, such as a cancer diagnosis, an individual’s assumptions about the world and self are often undermined, leaving the individual in an unstable psychological state. Researchers have suggested that finding benefits in adversity allows the individual to restore these assumptions, which enables the person to return to a stable state. Cognitive dissonance theory makes a similar prediction, stating that individuals are left in unstable states when their behaviors contradict their beliefs. One way individuals may restore stability is to change their beliefs. Benefit finding is an example of belief change. An experimental study was conducted to explore the relation between benefit finding and dissonance reduction. Participants (37 male, 27 female undergraduates) wrote essays on topics that contradicted their opinions on controversial topics (e.g., national health care, legal drinking age) under high or low choice conditions. They were then given the opportunity to change their attitudes and find benefits. Counterbalanced measures included attitude change (extent of change in agreement with topics) and benefit finding (Stress Related Growth Scale). Regression analyses indicated that when averaging across conditions, benefit finding was associated with less attitude change (p<.05), suggesting that benefit finding may be a means of reducing dissonance. However, a further examination of the conditions revealed that benefit finding was related to less attitude change for everyone except participants in the high-choice group who completed the benefit finding measure first (p<.05). For these individuals, benefit finding was related to more attitude change. These findings suggest that under some conditions benefit finding may facilitate attitude change.

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Symposium #24

ADVANCES IN UNDERSTANDING THE BIOLOGICAL PROCESSES LINKING SOCIOECONOMIC STATUS WITH HEALTH

Discussant: Laura Kubzansky, Ph.D., Harvard School of Public Health

Understanding the pathways through which socioeconomic disparities impact on risk of disease is a major issue in behavioral medicine research. While variations in lifestyle factors certainly contribute, there is increasing evidence for more direct psychobiological mediating processes. This symposium with review recent findings concerning disturbances in biological function that are associated with low socioeconomic status (SES), and which may be involved in increasing health risk in more deprived groups in the population. Three different perspectives on this issue are presented. Stephen Manuck will describe work on brain serotonin pathways that are associated with cardiovascular risk factors, in which variations in function related both to SES and genetic factors have been identified. Edith Chen will outline experimental psychophysiological studies with adolescents that have shown differential effects of control and resource manipulations in low and high SES groups. In the third presentation, Andrew Steptoe will discuss studies of middle-aged men and women that have documented associations between lower SES and heightened inflammatory stress responses, and disturbances in post-stress recovery of cardiovascular and hemostatic function. The discussant Laura Kubzansky will review these findings from the perspective of population studies of SES and health.

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Symposium #24A

SOCIOECONOMIC STATUS, GENETIC VARIATION, AND BRAIN SEROTONIN

Stephen B. Manuck,1 Janine D. Flory,1 Maria Bleik,1 Karen Petersen,1 Robert E. Ferrell,2 and Matthew F. Muldoon.1

1Behavioral Physiology Laboratory, University of Pittsburgh, Pittsburgh, PA; and 2Human Genetics Laboratory, University of Pittsburgh, Pittsburgh, PA.

Incident cardiovascular disease increases in inverse relation to the socioeconomic status (SES) of both individuals and communities. This SES gradient may be mediated partly by variation in brain serotonergic activity, as such differences: 1) covary inversely with several cardiovascular risk factors (hostility, depression, smoking, physical inactivity, components of the metabolic syndrome); and 2) were shown previously to correlate with personal SES indicators. However, not all individuals of less advantaged social position exhibit diminished serotonergic function. Suggesting genetic modulation of social influences on brain serotonin, we report that SES (income/education) interacts with common regulatory variation in the serotonin transporter gene (5-HTTLPR) to predict interindividual variability in central serotonergic responsivity (as reflected in prolactin rises induced by the serotonin agonist, fenfluramine, in 139 men and women). Prolactin responses covaried moderately with SES among homozygotes for the “short/long” allele (r=0.24, p<0.05). Subsequently, we observed that individuals living in Census tracts of socioeconomic disadvantage also showed diminished serotonergic responsivity, compared to residents of more affluent neighborhoods. After adjusting for personal income and education, community SES still predicted serotonergic responsivity, but independent of allelic variation at 5-HTTLPR. Thus, interindividual variability in brain serotonergic activity—a neural mechanism of potential relevance to cardiovascular risk—may have multiple determinants, including diverse sources of social inequality, genetic variation, and their interaction.

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Symposium # 24B

SOCIOECONOMIC STATUS AND PHYSIOLOGICAL HEALTH IN ADOLESCENTS: THE ROLE OF PSYCHOLOGICAL CONTROL VERSUS RESOURCES

Edith Chen.1

1Psychology, University of British Columbia, Vancouver, BC, Canada.

A large epidemiological literature has demonstrated robust associations of low socioeconomic status (SES) with poor physical health outcomes. However, few empirical studies exist that have manipulated proposed pathways of this effect. Two commonly proposed explanations of the SES-health effect include: 1) low SES individuals possessing different psychological characteristics that have implications for health; and 2) low SES individuals possessing fewer resources for dealing with stress. We conducted a laboratory experimental manipulation of these two pathways to determine their effects on physiological responses to stress in low and high socioeconomic status (SES) adolescents. Adolescents completed two tasks, one with psychosocial intervention, and the other without intervention. In the intervention condition, half of the adolescents had control over the stressor; the other half received tangible resources for dealing with the stressor. Physiological reactivity was monitored, including blood pressure (SBP/DBP) and heart rate (HR). Low SES adolescents exhibited lower SBP and DBP reactivity when provided with intervention, whereas high SES adolescents did not show differences in physiological response during the intervention vs. no intervention conditions. Among low SES adolescents, resources were more beneficial than control in reducing SBP and DBP reactivity. Given that changing the economic circumstances of low SES families is not likely a feasible option, targeting psychosocial mediators may serve as a promising approach to reducing the detrimental health consequences of living in a low SES environment. The present study served as a first step in this direction by identifying tangible resources as one potentially malleable pathway between low SES and physiological responses to stress in adolescents.

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Symposium #24C

CARDIOVASCULAR, HEMOSTATIC AND INFLAMMATORY RESPONSES ASSOCIATED WITH SOCIOECONOMIC POSITION IN MIDDLE-AGED MEN AND WOMEN

Andrew Steptoe,1 Lena Brydon,1 and Michael Marmot.1

1Epidemiology and Public Health, University College London, London, London, United Kingdom.

This presentation describes two studies testing the hypothesis that lower socioeconomic position (SEP) is associated with heightened stress reactivity or delayed recovery in cardiovascular, hemostatic and inflammatory variables. Study 1 involved 228 men and women aged 47-58 years recruited from the Whitehall II epidemiological cohort, with SEP defined by grade of employment within the British civil service. Color/word interference and mirror tracing tasks were administered, with physiological monitoring continuing up to 45 minutes post-tasks. There were no differences by SEP in subjective stress or task ratings, so people across the social gradient appraised the challenges similarly. Blood pressure and heart rate variability recovery post-stress was impaired in lower compared with higher SEP groups. Differences in hemostatic responses were also observed, with lower SEP participants showing more prolonged increases in Factor VIII (part of the coagulation cascade) and plasma viscosity. Increases in plasma interleukin 6 (IL-6) were recorded in the 45 minute post-task sample, but responses did not vary by SEP. The second study involved 38 higher and lower SEP nonsmoking men, with blood sampling up to 2 hours post-tasks. Heart rate recovery post-stress was impaired in the lower SEP participants, and in addition the lower SEP men showed greater stress-induced increases in IL-6 after adjusting for age, body mass index and concurrent hemocrit. We conclude that SEP differences in psychobiological regulation are particularly apparent during post-stress recovery, and may reflect differences in chronic allostatic load.

These studies were supported by the Medical Research Council and the British Heart Foundation.

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PAPER SESSION #32: 11:00 AM–11:18 AM

FAMILY AND FRIEND SUPPORT INFLUENCES ON PACIFIC ISLANDER YOUTH SMOKING RISK

Kari-Lyn K. Sakuma, B.A.,1 Steven Cen, M.S.,1 Guanjun Feng, M.A.,1 C. Angeles, CA.

Despite high rates of smoking among Pacific Islander (PI) youth, little is known about the influences that place them at increased risk for smoking. We administered a paper-and-pencil survey to 7th graders on the island of Hawaii to assess tobacco use and health-related behaviors. The current study investigates the impact of family and friend support on youth smoking. Of 821 students who completed the survey, 49.6% were categorized as PI, according to self-report as Native Hawaiian, Samoan, Tongan, Guamanian/Chamorro, Marshall, or any combination of PI plus any other ethnicity. All others were classified as non-PI.

Results indicated that family support was generally protective against lifetime smoking OR=0.63 (p<0.0001) and smoking susceptibility OR=0.53 (p<0.0001). After controlling for family support, lifetime smoking among PI youth (OR=1.96) decreased by 11% (OR=1.75) and smoking susceptibility (OR=1.94) decreased by 14% (OR=1.66). Friend support was not a significant factor in lifetime smoking (OR=0.80, p=0.08) or smoking susceptibility (OR=0.81, p=0.24). After controlling for friend support, lifetime smoking among PI youth (OR=1.96) decreased by 7% (OR=1.82) and smoking susceptibility (OR=1.94) decreased by 10% (OR=1.76). Results indicated that family support confers protection against both smoking behavior and susceptibility among all youth, while the influence of friend support was marginal for smoking susceptibility only. Moderator analyses indicated that friend support increased risk for lifetime smoking significantly (p=0.03) among our PI population.

Knowledge regarding determinants of PI youth smoking is key to the development of effective interventions for this understudied, underserved group.

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Paper Session #32: 11:18 AM–11:36 AM

ROLE OF PARENT AND SIBLING SMOKING IN THE LONGITUDINAL PREDICTION OF ADOLESCENT SMOKING ACQUISITION

Arthur V. Peterson, Ph.D.,1 Brian G. Leroux, Ph.D.,2 Jonathan B. Bricker, Ph.D.,1 Irwin G. Sarason, Ph.D.,2 M. Robyn Andersen, Ph.D.,1 and Kumar B. Rajan, M.S.1

1Division of Public Health Sciences, Fred Hutchinson Cancer Research Center, Seattle, WA; 2Department of Biostatistics, University of Washington, Seattle, WA.

Aim: To use a novel probability model for the longitudinal transmission of behavior from person to person to investigate in a large (n = 5,679) cohort the role of parent smoking and older sibling smoking in influencing child/adolescent smoking acquisition. Important features of the model are that it is at the level of the individual and provides estimates of the probability that a behavior of interest will be transmitted from one person to another. Setting: The study population was 5,679 families in forty Washington State school districts who participated in the 16-year Hutchinson Smoking Prevention Project (HSPP). Results: The estimated probability that one smoking parent influences the child to become a daily smoker at 12th grade was 0.12 (95% CI: 0.10, 0.15), and the estimated probability for two smoking parents was 0.23 (95% CI: 0.19, 0.27). Also, the estimated probability, per smoking sibling, that a smoking sibling influences the child to become a daily smoker at 12th grade was 0.06 (95% CI: 0.02, 0.11). Conclusions: These results suggest that public health efforts to reduce child/adolescent smoking should include emphasis on family members. More generally, this application and these results demonstrate that this social transmission probability model is readily interpretable, and has potential to be applied to other social environments, and to other behaviors.

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Saturday
April 16, 2005
11:00 AM–12:30 PM

Paper Session #32: 11:00 AM–11:18 AM

DAILY MOODS AMONG ADOLESCENT SMOKERS AND NONSMokers OVER TIME

Robin Mermelstein, Ph.D.,1 Donald Hedeker, Ph.D.,1 Brian Flay, D.Phil.,1 and Saul Shiffman, Ph.D.2

1Institute for Health Research and Policy, University of Illinois at Chicago, Chicago, IL; and 2Psychology, University of Pittsburgh, Pittsburgh, PA.

There is growing evidence for a reciprocal relationship between depression and smoking among adolescents with data supporting this link coming from retrospective, global ratings of mood. Far less is known about how adolescents’ daily moods in real time differ by smoking trajectories. This study used ecological momentary assessments to examine how daily moods among adolescents varied over time by smoking pattern. Participants were 511 8th and 10th graders (55% female; 52% 8th grade; 72% white) who carried PDAs for 7 consecutive days at baseline, 6, and 12 months, responding to 5-6 random prompts per day. The EMA asked about feelings “right now,” and participants responded to 12 adjectives (4 mood factors) using a likert-type scale. Seven longitudinal smoking patterns were derived from latent growth curve analyses: never smokers; ever triers; escalators and smokers compared to never smokers. Results suggest that changes in daily, momentary moods may not covary by changes in smoking among adolescents, and that real-time daily mood assessments reflect different constructs than global assessments of depression.

Supported by grant #CA80266 from NCI and by Tobacco Etiology Network Research, funded by RWJF.

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Paper Session #32: 11:36 AM–11:54 AM

NONSmokers OVER TIME

Robin Mermelstein, Ph.D.,1 Donald Hedeker, Ph.D.,1 Brian Flay, D.Phil.,1 and Saul Shiffman, Ph.D.2

1Institute for Health Research and Policy, University of Illinois at Chicago, Chicago, IL; and 2Psychology, University of Pittsburgh, Pittsburgh, PA.

There is growing evidence for a reciprocal relationship between depression and smoking among adolescents with data supporting this link coming from retrospective, global ratings of mood. Far less is known about how adolescents’ daily moods in real time differ by smoking trajectories. This study used ecological momentary assessments to examine how daily moods among adolescents varied over time by smoking pattern. Participants were 511 8th and 10th graders (55% female; 52% 8th grade; 72% white) who carried PDAs for 7 consecutive days at baseline, 6, and 12 months, responding to 5-6 random prompts per day. The EMA asked about feelings “right now,” and participants responded to 12 adjectives (4 mood factors) using a likert-type scale. Seven longitudinal smoking patterns were derived from latent growth curve analyses: never smokers; ever triers; escalators and smokers compared to never smokers. Results suggest that changes in daily, momentary moods may not covary by changes in smoking among adolescents, and that real-time daily mood assessments reflect different constructs than global assessments of depression.

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Paper Session #32 11:54 AM–12:12 PM

ADOLESCENT ATTITUDES TOWARDS SMOKING AND WEIGHT LOSS: RELATIONSHIP TO SMOKING STATUS
Melanie Bean, M.S., 1 Karen Mitchell, B.S., 1 Ilene Speizer, Ph.D., 1 Diane Wilson, Ed.D., 1 Brian Smith, Ph.D., 1 and Fries Elizabeth, Ph.D. 1

1Psychology, Virginia Commonwealth University, Richmond, VA.

Perceptions that smoking will curb appetite and help weight loss are widespread among youth. Investigating attitudes that increase the likelihood of smoking can inform prevention efforts. The current study examined two attitudinal measures of the link between weight loss and smoking to determine whether supportive attitudes were associated with smoking status. Participants (N=748) from three high schools were surveyed using a comprehensive instrument assessing smoking-related characteristics and behaviors. Attitudes assessed were perception of whether weight concerns are the reasons others smoke and personal beliefs about tobacco’s effect on weight gain (“If I stay tobacco free, I will gain weight”). Smoking was categorized as never (43%); experimental, but not current (42%); and current (15%) smoker. Multinomial regression analyses controlled for weight goals (lose/gain/none), gender, ethnicity, parent and peer smoking, and BMI. Attitudes towards smoking and weight loss were significantly associated with smoking status (p<.05). Both nonsmokers and experimental smokers were significantly more likely than current smokers to believe that people smoke to lose weight. Although smokers were less likely to report that people smoke for weight control, they did believe they would gain weight if they quit. Conversely, nonsmokers and experimental smokers were significantly less likely to believe they will gain weight if they do not smoke compared to current smokers. Findings suggest that personal attitudes differ from attitudes towards others with respect to weight loss and smoking. Because weight concerns are a significant factor in youth smoking, these issues should be part of prevention efforts.

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Paper Session #33 11:00 AM–11:18 AM

RELATIVE CONTRIBUTIONS OF PSYCHOLOGICAL, SOCIAL, AND ENVIRONMENTAL VARIABLES TO EXPLANATION OF PHYSICAL ACTIVITY
James Sallis, Ph.D., 1 Brian Saelens, Ph.D., 2 Lawrence Frank, Ph.D., 3 Terry Conway, Ph.D., 2, and Kelli Cain, Ph.D. 1

1Psychology, San Diego State University, San Diego, CA; 2Pediatrics / Division of Psychology, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH; and 3School of Community and Regional Planning, University of British Columbia, Vancouver, BC, Canada.

Ecological models of behavior posit multiple levels of influence on behavior, and the present study examined the contributions of four domains of variables to explaining objectively measured physical activity (PA). Sixteen neighborhoods were selected in King County, Washington (Seattle area) that varied in “walkability” and income. “Walkability” means neighborhoods have high density, street connectivity, and mixed land use characteristics that have been related to more active transportation. A total of 1218 randomly selected adults aged 20-65 years were recruited (45% female; mean ages 44 years; 18% ethnic minority). Average daily minutes of moderate to vigorous physical activity (MVPA) were derived from 7 days of monitoring with Actigraph accelerometers. Demographic (age, education, BMI, car ownership), psychological (benefits, barriers, self-efficacy, enjoyment), and social (social support from family, friends) were assessed by standardized surveys. Walkability of the neighborhood within 1 km of each participant’s home was measured objectively with an index using Geographic Information System data. Each domain was entered as a block into multiple linear regressions in the order listed. For women/men, adjusted R-square changes were .10/.09 for demographics, .11/.04 for psychological, .00/.00 for try to compensate by buying more exercise equipment but this does not necessarily lead to greater PA.

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Paper Session #33 11:18 AM–11:36 AM

PREDICTORS OF ABSTINENCE DURATION FOLLOWING ADOLESCENT SMOKING CESSATION
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1Psychiatry, University of California, San Diego, La Jolla, CA; and 2Veterans Medical Research Foundation, San Diego, CA.

Little is known regarding the adolescent smoking cessation process. Studies to date demonstrate a frequent and rapid return to smoking following adolescent cessation attempts, yet data regarding factors which influence outcome are sparse.

Included in the present study were 42 participants in a longitudinal investigation of adolescent smoking self-change, 55% female, 69% White, on average 16.6 (SD=1.0) years old. Participants had attempted cessation prior to a 6 month follow-up assessment. Baseline measures of demographics, smoking, cessation motivation and self-efficacy, coping skills, peer smoking, and cessation strategies were examined in relation to abstinence duration.

Univariate analyses were conducted to identify predictors to be entered in a multiple regression. Of variables examined, fewer cigarettes per day (F(1,40)=6.47, p=.015), higher self-efficacy (r=.300, p = .05), more coping strategies (r=.435, p=.041) and utilization of 4 cessation strategies (r’s=.339 to .452, p’s < .05) were significantly predictive of longer abstinence. The cessation strategy variable was summed into a single variable for use in the regression. A multiple regression examining these predictors revealed a significant overall model (F(4,35)=4.106, p=.008, adjusted R2=.242), with number of cessation strategies employed emerging as the only significant predictor (β=.359, p = .041).

In the present study, cessation strategies were the strongest predictor of abstinence duration. Strategies associated with better outcome included smoking reduction, physical activities, avoiding smokers and associating with non-smoking friends. These preliminary findings show promise for informing the design of adolescent smoking cessation interventions.

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Paper Session #33 11:18 AM–11:36 AM

CAN HOME EXERCISE EQUIPMENT COMPENSATE FOR AN “UNWALKABLE” NEIGHBORHOOD ENVIRONMENT?
Jacqueline Kerr, Ph.D., 1 James F. Sallis, Ph.D., 1 Brian E. Saelens, Ph.D., 2 Lawrence D. Frank, Ph.D., 3 Terry L. Conway, Ph.D., 2, and Kelli Cain, M.A., 1

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Various environmental factors, such as “walkability”, are associated with physical activity (PA). Home exercise equipment is also positively correlated with PA levels. This study investigated the interaction between neighborhood walkability, activity-related equipment, and adult and child PA. Adults (n=1224) reported presence of home exercise equipment. Their moderate to vigorous PA was monitored for 7 days with Actigraph accelerometers. Neighborhood walkability was assessed objectively using Census and Geographic Information System (GIS) data on land use, street networks, and density. Adults with children aged 4 to 18 years (n=201) reported on their children’s activity levels, play equipment, and yard and driveway size. Analyses controlled for income, age and gender. Families in low walkability neighborhoods had significantly (p<.001) more home exercise equipment (mean 6.2 versus 5.0) and play equipment (mean 4.1 versus 3.1). Yard and driveway sizes where children could play were significantly larger in low walkability neighborhoods (p<.002). In low walkability neighborhoods 33% of yards were over 4000 square meters compared to 5% in high walkability neighborhoods. Play and home exercise equipment and yard and driveway size, however, were not related to either child or adult PA levels. Those living in less active environments may try to compensate by buying more exercise equipment but this does not necessarily lead to greater PA.

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Paper Session #33 11:18 AM–11:36 AM

ENVIRONMENT?
CAN HOME EXERCISE EQUIPMENT COMPENSATE FOR AN “UNWALKABLE” NEIGHBORHOOD ENVIRONMENT?

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Ecological models of behavior posit multiple levels of influence on behavior, and the present study examined the contributions of four domains of variables to explaining objectively measured physical activity (PA). Sixteen neighborhoods were selected in King County, Washington (Seattle area) that varied in “walkability” and income. “Walkability” means neighborhoods have high density, street connectivity, and mixed land use characteristics that have been related to more active transportation. A total of 1218 randomly selected adults aged 20-65 years were recruited (45% female; mean ages 44 years; 18% ethnic minority). Average daily minutes of moderate to vigorous physical activity (MVPA) were derived from 7 days of monitoring with Actigraph accelerometers. Demographic (age, education, BMI, car ownership), psychological (benefits, barriers, self-efficacy, enjoyment), and social (social support from family, friends) were assessed by standardized surveys. Walkability of the neighborhood within 1 km of each participant’s home was measured objectively with an index using Geographic Information System data. Each domain was entered as a block into multiple linear regressions in the order listed. For women/men, adjusted R-square changes were .10/.09 for demographics, .11/.04 for psychological, .00/.00 for try to compensate by buying more exercise equipment but this does not necessarily lead to greater PA.

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PERCEIVED ENVIRONMENT AND PHYSICAL ACTIVITY: A META-ANALYSIS OF SELECTED ENVIRONMENTAL CHARACTERISTICS

Mitch J. Duncan, B.H.M.Sc. (Hons),1 John C. Spence, Ph.D.,2 and Kerry W. Mummery, Ph.D.3
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Narrative reviews of environmental correlates have been useful in summarising characteristics examined to date, however are unable to provide insight on the size of the association between physical activity and specific characteristics of the environment. This research aimed to quantitatively summarise associations between physical activity and perceptions of the environment using meta-analytic methods. Studies were included if they assessed perceived presence of PA facilities, crime, heavy traffic, unattended dogs and street lighting. Perceiving traffic not to be a problem was the only variable associated with activity using crude OR's (1.15, 95% CI). Data were analysed separately for unadjusted and adjusted OR's using a general-variance based fixed effect model. Self-report variables were included if a minimum of 5 ES were present, variables included were proximity of PA Facilities, shops, sidewalks, and the presence of high crime, heavy traffic, unattended dogs and street lighting. Perceiving traffic not to be a problem was the only variable associated with activity using crude OR's (1.15, 95% CI. 1.02-1.28). Examination of adjusted OR's revealed that the perceived presence of PA facilities (OR 1.28, 95% CI. 1.13-1.43), sidewalks (OR 1.23, 95% CI. 1.13-1.32), shops and services (OR 1.15, 95% CI. 1.01-1.29) and perceiving traffic not to be a problem (OR 1.13, 95% CI. 1.03-1.23) were positively associated with activity. Cost effectiveness of environmental interventions can be increased by directing attention towards variables identified in this study. Policy level determinants may provide the greatest opportunities to modify new and existing environments to promote physically active lifestyles.

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SOCIODEMOGRAPHIC MODERATORS OF AN ECOLOGICAL MODEL PREDICTING PHYSICAL ACTIVITY: A STRUCTURAL EQUATION MODELING APPROACH

Lorna T. Haughton, Ph.D.,3 M.P.H.,1 Kathleen W. Wyrwich, Ph.D.,2 Ross C. Brownson, Ph.D.,3 Eddie M. Clark, Ph.D.,4 and Matthew W. Kreuter, Ph.D.3
1Society, Human Development and Health, Harvard School of Public Health, Boston, MA; 2Research Methodology, Saint Louis University, Saint Louis, MO;3Psychology, Saint Louis University, Saint Louis, MO; and 4Community Health, Saint Louis University School of Public Health, Saint Louis, MO.

This study used structural equation modeling to examine effects of gender, race/ethnicity, income, age and education in moderating theorized direct and indirect relationships between individual (e.g., intrinsic and extrinsic motivation and self-efficacy), social environmental (e.g., social support) and physical environmental correlates of physical activity (PA). Study participants (N=910) were predominately women (68%); 57% were white and 43% African American; 41% had an income below $20,000/yr; their mean age was 32.6 years (SD=13.1). Stratification of the sample by gender, race/ethnicity, income, age and education yielded 10 models. The overall fit of each stratified model predicting moderate PA for each sociodemographic subgroup was acceptable based on standard fit index criteria. Providing evidence of factorial validity and factorial invariance, multi-group analyses showed that model constructs (e.g., social support, intrinsic and extrinsic motivation, self-efficacy and physical environmental correlates) were measured equally well across sociodemographic subgroups. The structural relationships between the constructs, however, varied by sociodemographic subgroup. For example, the association between the availability of PA facilities and moderate PA was significant and positive for younger adults, and unrelated among older adults; extrinsic motivation was negatively associated with self-efficacy among women and unrelated among men. All significant model differences will be highlighted. Findings indicate that sociodemographic factors moderate the relationship between social ecological correlates of PA. Implications for research and PA interventions will be addressed.

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ECOLOGIC CORRELATES OF OBESITY IN RURAL OBSE Adults

Rebecca E. Lee, Ph.D.1 Allen Greiner, M.D.,2 Sandra Hall, Ph.D.,2 Wendi Born, Ph.D.2 Kim Kimmina, Ph.D.,2 and Andrew Allison, Ph.D.2
1Health & Human Performance, University of Houston, Houston, TX; and 2Preventive Medicine & Public Health, University of Kansas Medical Center, Kansas City, KS.

Both individual-level and neighborhood-level factors are emerging as important for obesity control. Little is known about rural areas, where obesity prevalence is higher. This study examined the joint relationship of individual- and neighborhood-level factors to obesity and trying to lose weight. Rural residents (N=414) completed anthropometric assessments of weight and height along with survey assessments of individual sociodemographics and trying to lose weight. Neighborhood data included health care coverage (aggregated county-level physician data), normative health behaviors (aggregated county-level BRFSS data), and sociodemographic context (aggregated tract-level US Census data). Generalized estimating equations were used to account for the joint contributions of individual and neighborhood-level factors. Participants were obese (M BMI=38.3, with 30% (n=126) morbidly obese. A majority (73%, n=302) of the sample was trying to lose weight. Participants who were morbidly obese were more likely to be younger, disproportionately female, have private insurance, have more comorbid conditions, and rate themselves in better health in comparison to their obese peers (p<.05). Participants trying to lose weight were likely to be younger, disproportionately female, have fewer comorbid conditions, and have attempted to lose weight more times via exercise, in comparison to those not trying to lose weight (p<.05). Few relationships were seen between the neighborhood-level variables and obesity or trying to lose weight, suggesting no consistent pattern of relationships among these variables for rural residents. These findings suggest unique aspects of rural living may not be captured by traditionally available environmental measures.

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AN INTEGRATED MODEL OF PEDIATRIC ADHERENCE

Mirella De Civita, Ph.D.,1 and Patricia L. Dobkin, Ph.D.2
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Optimal adherence in pediatric patients is achieved when both children and caregivers collaborate with health providers in designing a manageable treatment program. This collaborative effort may be impeded when there are clashes of disruptive views regarding treatment within the caregiver-child-provider relationship. Equally important, health providers must work with changing developmental needs and family functioning. The process of development contributes to a child’s relative degree of adaptive capacity, with his or her family environment being either favorable or unfavorable to continued development. This mutual regulation of development and family context takes places over time since both adaptive capacity and contextual influences are likely to change in importance and to influence one another. The disease course may modify adherence by playing into this mutual regulation of context and development. Current models of pediatric adherence have neglected the importance of understanding the fit (or misfit) in the development-context-disease regulatory system. Even when the roles of development, context, and disease are acknowledged, there is little integration of these forces come together to influence adherence. There is also a tendency to view adherence as involving dyadic partnerships (child-provider; caregiver-child; caregiver-provider) as opposed to a triadic partnership (medical team-child-caregiver). A more integrated view of adherence is needed. We offer a model of pediatric adherence that acknowledges the multidimensional aspect of treatment plans, the triadic partnership, and the dynamic roles of development, context and disease. We call attention to methodological issues inherent in the assessment of adherence from a multidimensional and dynamic perspective, and offer recommendations for practicing clinicians.

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WHO’S IN THE ROOM? RELATIONSHIPS BETWEEN PARENTS’ COMMUNICATION AND CHILDREN’S STRESS DURING PAINFUL CANCER TREATMENT PROCEDURES

Rebecca J. Cline, Ph.D.,1 Louis A. Penner, Ph.D.,1 Terrace L. Albrecht, Ph.D.,1 John C. Ruckdeschel, M.D.,1 Amy M. Peterson, B.A.,2 Jeffrey W. Taub, M.D.,1 Felicity K. Harper, Ph.D.,1 and Luczal T. Simon, M.A.1

1Karmanos Cancer Institute, Detroit, MI.

This study assumed that parents’ communication patterns during painful cancer treatment procedures (e.g., port starts, spinal taps) affect children’s stress during procedures as well as other short-term and long-term outcomes. These interactions represent problematic (non-routine) situations challenging both parties to define and manage a new situation. An initial review of 11 cases identified four distinct types of parents’ situation-defining communication patterns: (1) reframing the situation as “normal” (e.g., play, homework, everyday conversation); (2) denying the situation (e.g., misrepresenting/deceiving, invalidating the child’s anxiety, pain, experience); (3) defining the situation as a joint challenge, implying “I am with you in this situation” (e.g., sustained touching, holding; close personal space; empathy, inquiring about the child’s well-being, validating the child’s experience), and (4) defining the situation as solely the child’s challenge, implying “you are in this situation, I am not” (e.g., physically distant; minimal or instrumental touching or touching only at the child’s initiation; leaving the room; interacting with third parties while ignoring the child). A coding system was developed, including descriptions of the types and coding rules. Two coders reviewed 25 videotapes and coded parents’ interaction patterns. Analyses examined relationships between parents’ interaction types and outcomes, including observed levels of child distress, self-reported pain, and physiological stress reactions (including salivary cortisol, stress hormones in serum, and stress-related metabolites in cerebrospinal fluid). Results have implications for managing children’s stress during painful procedures.

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ANIMATION IN HEALTH RELATED QUALITY OF LIFE (HRQL) ASSESSMENT USING THE CHILD HEALTH RATING INVENTORIES (CHRIs©)

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Purpose: Obtaining patients’ perceptions of their functioning, well-being and impact of illness through self-reported HRQL measures can be challenging if the patient is a child, has evolving or low-literacy, deficits in cognitive functioning, or cognitive impairment. Instead, proxy reporters are often solicited to provide this information; however, this is not a complete substitute for self-report. Additionally, most existing self-report instruments are administered in a paper and pencil format, which may not be as effective for these populations. To date, animation has rarely been used as a non-verbal method to enhance child self-report instead of, or in addition to, proxy reports. Using the recent updating process of the CHRIs (originally converted from a paper and pencil format into animation for use with young, medically ill children, ages 5-12), we describe how animation can be a potential method for obtaining self-report.

Method: With recent improvements in design technology, the animated CHRI was recently updated using FLASH© to improve processing speed, graphics, and por-
tability and distribution. The update will also enable it to be used on different platforms such as, touch screen computers and PDA’s. Challenges were encountered in updating the visual detail and degree of photo-realism. The theoretical understandings of children development informed design decisions.

Discussion: The process followed in the CHRI animation can be applied to other HRQL measures to enhance their accessibility in special populations. As a result, clinicians and researchers can obtain a more complete picture of HRQL.

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RATING QUALITY OF LIFE (QOL) IN YOUNG CHILDREN: THE RELATIVE VALUE OF THREE RESPONSE FORMATS

Joanne Cremeens, Ph.D.,1 and Christine Eiser, Ph.D.2

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Objectives: Child self-report measures have employed various response scale types. However, children’s ratings may not be equivalent across different scales and responses may vary dependent upon scale used. The most appropriate response format for child measures should be determined empirically. This study investigated the relative value of three scales for a new child self-report QOL measure (TeqQOL-3, generic discrepancy-based measure).

Method: Two hundred and seventy-seven children (in two age strata, 5.0-6.5 years, n=139; 7.0-8.5 years, n=138) completed the measure. Two hundred and sixty-six children (5.0-6.5 years, n=130; 7.0-8.5 years, n=136) were re-tested one week later. Children answered using one of three four-point scales – circles (big to small), faces (happy to sad), or thermometer (20 cm). Children either used the same scale across both time points (n=144), or different scales (n=122). Test-retest reliability was calculated for children using the same scale at both time points. Comparability of scores across scales was examined using correlation coefficients.

Results: Children’s responses using the thermometer were associated with the highest psychometric properties (i.e., internal consistency, test-retest reliability). Children’s responses were weakly correlated across circles and thermometer scales (p=0.19 - 0.57), and across faces and thermometer scales (p=0.36 – 0.41). However, children’s responses were strongly correlated across circles and faces scales (p=0.56 - 0.95).

Conclusions: Response scale utilized can impact the reliability of children’s self-reports, and rat-
ings may not be comparable across scales. Children’s responses showed higher reli-
ability using the thermometer to answer TeqQOL-3 items, however the validity of this measure needs to be investigated.

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RESPONSE FORMATS

Paper Session #34 11:18 AM–11:36 AM

Paper Session #34 11:36 AM–11:54 AM

Paper Session #34 12:12 PM–12:30 PM
Paper Session #35  11:00 AM–11:18 AM
PUBLIC PERCEPTIONS AND MEDIA COVERAGE OF LEADING CAUSES OF DEATH IN THE U.S.
Karen K. Lee, B.A., 1 Sarah C. Kobrin, Ph.D., 2
1Society, Human Development, and Health, Harvard School of Public Health, Boston, MA; and 2Center for Community-Based Research, Dana-Farber Cancer Institute, Boston, MA.
This study examines media coverage of risks and attributions to causes of death, actual leading causes of death in the U.S., and Americans’ beliefs about them. Formal education was further examined as a potential mediator.
Methods: Data come from the National Cancer Institute’s Health Information National Trends Survey (HINTS), based on a nationally representative sample of 6,369 American adults. Media attention was assessed by the number of stories published on death-related causes and risk factors. Leading causes of deaths were derived from a Mokdad et al. report (2000).
Results: The public’s beliefs about what caused the most deaths closely matched the leading cause of death according to the CDC, with 43.93% of respondents correctly identifying cigarettes as the leading cause. Correspondence disappears when accounting for other causes. While deaths attributed to auto accidents were one-tenth that of smoking, about 34% mentioned it as the second leading cause. Education appears to mediate beliefs, although overall ranking is similar. About 38% of the lowest education group thought cigarettes caused the most deaths, compared to 49% of college graduates. Media coverage lagged behind the attribution of causes of deaths. Coverage of smoking ranked fifth behind drugs, guns, alcohol and firearms. Media may pay more attention to dramatic and crime-related risk factors irrespective of their proportional contribution to deaths. Although public perceptions and actual causes of death closely correspond, education groups gave different weights to each cause. We seek to explain this variance in relation to social and physical environments or media coverage.
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Paper Session #35  11:18 AM–11:36 AM
THE INFLUENCE OF ATTENTION TO MASS MEDIATED INFORMATION ABOUT HEALTH AND MEDICINE ON THE RECEIPT OF RECENT COLORECTAL CANCER SCREENING
Whitney Randolph Steele, Ph.D., M.P.H., 1 Sarah C. Kobrin, Ph.D., M.P.H., 2 Lila J. Finney Rutten, Ph.D., M.P.H., 1 and Helen I. Meissner, Ph.D., Sc.M. 2
1Cancer Prevention Fellowship, Division of Cancer Prevention and Health Communication and Informatics Research Branch, Division of Cancer Control and Population Sciences, NCI, Rockville, MD; and 2Applied Cancer Screening Research Branch, Division of Cancer Control and Population Sciences, NCI, Rockville, MD.
This project investigates the influence of attention to health and medical topics on different types of media with recent receipt of colorectal cancer screening. The data for this study come from the National Cancer Institute’s (NCI) Health Information National Trends Survey (HINTS), a probability based sample of 6369 respondents. The sub-sample of approximately 2600 individuals used for these analyses consisted of men and women aged 50 and older who had no previous history of colorectal cancer. We controlled in all logistic models for factors known to be predictive of recent colorectal cancer screening – age, race/ethnicity, income, education, health insurance and having a usual health care provider – and regressions were performed using SUDDAN to account for the complex sample design. The additional variable of interest was attention to health/medical information in passive media (television and/or radio), active media (newspapers and/or magazines) or proactive media (Internet). We found that having a fecal occult blood test in the past year was significantly related to attention to active media (OR 1.82, 95% CI 1.15-2.86), but not passive or proactive media. Having a colonoscopy or sigmoidoscopy in the past 5 years was not significantly related to attention to any of the three kinds of media. Therefore despite increased media attention to colorectal cancer screening in recent years attention to health and medical information in the media does not appear to greatly influence screening.
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Paper Session #35  11:36 AM–11:54 AM
DISPARITIES IN CANCER NEWSPAPER COVERAGE BY CANCER TYPE
Jo E. Stryker, Ph.D., 1 Karen M. Emmons, Ph.D., 2,3 and Vish Viswanath, Ph.D. 2,3
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While the news media are an important source of health information for the general public, little is known about the quantity and quality of media attention to particular types of cancer. We report the extent to which media are over- or under-reporting different types of cancer, using incidence rates as the gold standard for media reporting. Comparisons are made with similar analyses conducted twenty-four years ago. We are reporting preliminary data from an ongoing content analysis of cancer newspaper coverage of the top-circulating U.S. newspapers appearing in 2003; N= 1,062 articles about cancer; 79% (N = 839) mentioned specific types of cancer.
RESULTS:
Breast cancer was mentioned twice as frequently as prostate cancer, the second most frequently mentioned cancer. Subtracting media rank from incidence rank, attention to specific cancers is more closely correlated with cancer incidence rates in our study in comparison to earlier studies conducted in 1977 and 1980. Media attention was substantially disproportionate for four cancers: the media are over-reporting leukemias (+6 score) and breast cancer (+7), while under-reporting skin cancer (-3) and bladder cancer (-4).
Looking at the level of detail with which specific cancers are discussed reveals that stories about prostate cancer, skin cancer, and breast cancer received the most detailed coverage. Stories about stomach cancer, kidney cancer, and Non-Hodgkin’s Lymphoma received the least detailed coverage.
Explanations for media attention disparities include the following: 1) the cohesiveness of lobbying efforts by specific cancer groups; and 2) the disproportionate media attention to treatment rather than prevention.
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Paper Session #35  11:54 AM–12:12 PM
HORMONE THERAPY USE IN THE AFTERMATH OF THE WOMEN’S HEALTH INITIATIVE
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1Medical Humanities/Social Sciences, Florida State University, Tallahassee, FL; and 2Clinical Sciences, Florida State University, Tallahassee, FL.
In 2002, the Women’s Health Initiative (WHI) prematurely terminated its clinical trial of hormone therapy (HT) because data suggested that the risks of estrogen plus progesterin outweighed the benefits. The present study examined how WHI findings may have influenced women’s decisions to use HT and sought to identify demographic, medical, WHI-related, and psychological predictors of post-WHI HT use. Data were collected from 97 women (aged 40-74) visiting OB/GYN and family practice clinics in North Florida approximately 2 years after the cessation of the WHI trial.
At data collection, 37% were currently using HT. Current use was positively correlated with age, postmenopausal status, hysterectomy, and oophorectomy. Compared to nonusers, users were less likely to have received a recommendation to discontinue HT use, suggesting an important role for health care providers in HT decisions. Several psychological variables associated with the Health Belief Model (e.g., perceived benefits, barriers) and the Theory of Reasoned Action (e.g., norms, attitudes) predicted current use. Hierarchical logistic regression analysis indicated that these psychological variables were independent predictors of HT use, over and above physicians’ advice. Although current users were more likely to be aware of the WHI than nonusers, they reported that recent media accounts about HT had a weaker influence on their HT-related decisions. Furthermore, even though the WHI reported that the risks of HT outweigh the benefits, current users endorsed the belief that for them personally, the benefits outweigh the risks. Indeed, this belief was the strongest predictor of HT use (r = .62).
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Paper Session #35 12:12 PM–12:30 PM

NUTRITIONAL CONTENT OF TELEVISION ADVERTISEMENTS DIRECTED AT CANADIAN CHILDREN

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INTRODUCTION: Studies show that an alarming number of Canadian children are overweight. Television viewing may contribute to the problem by inundating children with advertisements for food-related, energy-dense foods. Although studies have examined the content of TV commercials in other countries, this is the first in Canada since children's cable has become widely available.

METHOD: We recorded 14 hours of children’s programming from 6 different channels on a single Saturday morning in February 2004. A content analysis was performed on the advertisements contained therein to determine how many were food-related, what the nutritional content was, and if additional inducements were used to motivate consumption of the product. RESULTS: There were an average of 14.93 food ads per hour, representing about 64% of all paid advertising. Using suggested serving sizes from product packages, a nutritional analysis showed that the average energy content of advertised foods was 180 calories. It also indicated that this “TV diet” was heavy in carbohydrates (more than 60% of calories coming from this source) and fat (28%). Almost half of the ads (47%) portrayed physical activity as being associated with consumption of the food. A small number of ads (22%) included messages that implied the advertised food was healthy or nutritious. DISCUSSION: This content analysis showed that most ads directed at Canadian children are food related, tend to portray foods as healthy or nutritious, and contain subtle promises of reward for consuming the foods. Although it is descriptive in nature, this study contributes to our understanding of the motivations for children’s eating habits.

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Paper Session #36 11:00 AM–11:18 AM

FAST-FOOD CONSUMPTION AND BREAKFAST SKIPPING: RISK FACTORS FOR WEIGHT GAIN FROM ADOLESCENCE TO ADULTHOOD

Heather M. Niemeier, Ph.D., Hollie A. Raynor, Ph.D., Elizabeth E. Lloyd-Richardson, Ph.D., and Rena R. Wing, Ph.D.

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The transition from adolescence to adulthood is a high-risk time for weight gain. In order to develop effective weight gain prevention programs, it is important to identify behaviors that put adolescents at risk for weight gain during this transition. Although previous research has suggested several dietary factors that are associated with overweight in adolescents cross-sectionally, this is one of the first to prospectively examine the relationship between dietary behaviors during adolescence and relative weight status during young adulthood (i.e., six years later). The sample consisted of nationally representative data from waves II and III of the National Longitudinal Study of Adolescent Health (n=99787). The mean age was 15.9 years at baseline and 21.4 years at follow-up: 54% of the sample was white/caucasian, 20% African American, 16% Hispanic, 7% Asian American, and 3% Other. Twelve percent of the sample exceeded the 95th percentile BMI at baseline, and 18% did so at follow-up. Fast-food consumption and breakfast skipping at baseline predicted greater relative BMI at follow-up. Adolescents who reported more frequent fast-food consumption at baseline had higher z-BMI scores at follow-up, controlling for baseline z-BMI and demographic variables (p<0.01). Conversely, more days of breakfast consumption per week at baseline predicted lower z-BMI at follow-up (p=0.01). Fruit, vegetable, low-fat dairy, and sweetened drink consumption at baseline did not predict adult relative BMI status. Fast-food consumption and breakfast skipping may represent appropriate targets for weight gain prevention programs in adolescents.

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Paper Session #36 11:18 AM–11:36 AM

EFFECTS OF MEAL SKIPPING ON BULIMIC SYMPTOMS AND WEIGHT CHANGE: A RANDOMIZED EXPERIMENT

Lisa M. Groesz, B.A.,1 and Eric Stice, Ph.D.1
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The dietary restraint model posits that cognitive control over eating, rather than physical satiety cues, increases vulnerability to uncontrolled eating (Polivy & Herman, 1985). Yet experimental studies indicate weight loss diets result in decreased bulimic symptoms (Presnell & Stice, 2004). There exist discordant results on whether skipping meals increases likelihood of overeating. We used a 3 (condition) X 2 (time) repeated measure ANOVA to test the impact of dieting and food distribution on weight loss, bulimic symptoms, and body satisfaction. The number of daily meals was manipulated in young women seeking weight loss (N = 142, mean BMI = 26.13), holding other dietary factors constant, to examine whether eating five smaller meals compared to fewer meals improved adherence to caloric restrictions and healthier dietary methods. There was significant change in BMI across conditions (F[2, 115] = 3.13, p = 0.05), with participants in the two dieting conditions losing more weight than participants in the no-dieting condition. The dieting conditions displayed significant reductions in bulimic symptoms over time. The dieting conditions displayed reductions in evaluative concerns compared to no-diet: F[2, 115] = 10.04, p < .01. The dieters also had significant decrease in urge to overeat and body dissatisfaction compared to controls. This study found that a low-calorie diet decreases likelihood of eating symptoms compared to a control condition. The findings contradict the dietary restraint model, implying effective dietary restriction can reduce bulimic symptoms and increase body satisfaction. The lack of change between the two dieting conditions indicates that meal skipping does not increase the likelihood of binge eating.

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Paper Session #36 11:36 AM–11:54 AM

SHOULD I DIET? WHAT SHOULD I EAT? DIFFERENT DECISION MAKING FACTORS PREDICT DIETING INTENTIONS VERSUS ACTUAL DIETARY BEHAVIOR

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Many individuals diet to lose weight. Most attempts are not successful—weight loss is either not lost or is quickly regained. We investigated decision-making factors influencing dieting intentions versus those influencing actual behavior. Prior to eating in a university cafeteria, 65 participants reported their cost-benefit beliefs about low fat foods and fruits/vegetables, affective associations with both food categories, and whether they were currently dieting to lose weight. After the meal, participants reported what they ate. Using these reports and nutritional data from the college dining service, we computed the calories, total and saturated fat, sodium, and cholesterol consumed. Cost-benefit beliefs and affective associations were examined as predictors of both dieting intentions and actual dietary intake. For intentions to diet, cost-benefit beliefs about both types of food differentiated dieters and non-dieters, both Fs(1,69)>3.5, p<.05, whereas neither affective variable differed by intentions, both Fs(1,69)=2.0, ns. By contrast, when predicting actual dietary intake, the two affective variables predicted of all nutritional content variables, both Fs(1,69)>3.5, p<.05, whereas neither cognitive variable predicted intake, both Fs<1, ns. These findings suggest that decisions to diet are influenced by different factors than are actual decisions about dietary behaviors. These differential decision influences may help to explain why attempts to diet are so frequently unsuccessful.

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LIFETIME WEIGHT LOSS AND EATING ATTITUDES AMONG NON-OBESE WOMEN SEEKING TO PREVENT WEIGHT GAIN

Michele D. Levine, Ph.D., Melissa A. Vachon, Ph.D., Mary Lou Klem, Ph.D., Jennifer D. Slane, B.A., and Marsa D. Marcus, Ph.D.1
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Evidence has suggested an association between weight cycling and longer-term weight gain and binge eating. We examined the relationship between previous weight loss (a proxy for weight cycling used in previous studies) and current attitudes about eating, shape, and weight among normal weight and overweight women participating in a weight gain prevention program.

Participants were 284 women enrolled in a randomized trial designed to test different approaches to preventing weight gain. Women were 35.6 (±5.6) years old, with BMIs of 25.1 (±2.5) and mostly (86.5%) white. Women were weighed prior to participation, and completed the Center for Epidemiologic Study Depression Scale, Three Factor Eating Questionnaire and a measure of binge eating. Weights were measured one, two and three years post-intervention. Total lifetime weight loss, excluding weight changes associated with pregnancy, was derived from questionnaires. Mean lifetime weight loss was 63.5±71.1 pounds, and 63% of women reported lifetime weight losses greater than 30 pounds. Lifetime weight loss was positively related to dietary restraint (p<.001), disinhibition (p=.001), perceived hunger (p=.02) and depressive symptoms (p=.04). Additionally, women with greater lifetime weight losses were currently heavier, older, likelier to be on a diet, and reported more difficulty maintaining current weights than did those with less lifetime weight loss. Preliminary data suggest that total lifetime weight loss is negatively related to weight maintenance. Concerns about weight and shape among women interested in weight gain prevention are associated with the magnitude of previous weight loss and may interfere with efforts to prevent weight gain.

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RECRUITING AFRICAN AMERICAN WOMEN TO PARTICIPATE IN HEREDITARY BREAST CANCER RESEARCH

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Recommendations for improving African American participation in medical research include targeting community resources and using personalized recruitment strategies; however, limited information is available on the effectiveness of these approaches for recruiting African American women to participate in hereditary breast cancer research. The purpose of this study was to evaluate the yield of eligible women identified from community and clinical sources and to describe rates of enrollment in a genetic counseling study among African American women at increased risk for hereditary breast cancer. Bivariate analyses were conducted to evaluate the association between clinical factors, recruitment procedures, and enrollment decisions. Logistic regression analysis was conducted to identify factors having independent associations with enrollment. A total of 788 women were screened; of these, 168 (21%) were eligible for participation. Eligible women were most likely to be identified from oncology clinics (44%) compared to community resources (23%) and general practices (11%) (Chi Square=96.80, p<.0001). Overall, 62% of eligible women enrolled in the study. Women who had two or more relatives affected with cancer were twice as likely to enroll in the study compared to women who had fewer affected relatives (OR=2.32, 95% CI=1.15, 4.66, p=.02). Women recruited from oncology clinics and community resources were also about four times more likely to enroll compared to those recruited through general medical practices (OR=3.88, 95% CI=1.89, 7.98, p=.002). These results suggest that African American enrollment in genetic counseling research may be motivated by the recruitment setting and familial experiences with cancer.

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CAPITAL INVESTMENT: A COMMUNITY RESEARCH SUBJECT ASCERTAINMENT MODEL

Stephanie Johnson, Ph.D.,1 Goldie Byrd, Ph.D.,2 Henry Edmonds, B.A., Miriam Feliz, Psy.D.,1,3 and Christopher L. Edwards, Ph.D.1,3
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The best clinical and research ideas are often derailed by ineffective subject recruitment. Ineffective recruitment strategies are frequently described as salient factors in subject inactivity and under representation of diverse populations in clinical trials. Yet, few effective solutions are ever presented. The current presentation will introduce a subject ascertainment model consisting of several steps to improve the environmental context for recruitment prior to individual-level contacts. Environmental preparation includes the establishment of rapport by integrating and assimilating into known community institutions. Further, understanding and integrating the needs of potential populations into the method’s formulation and result’s dissemination processes. This capital investment model of subject ascertainment yields several advantages over many current approaches. Using a real-life example, the current presentation will discuss these advantages and their relation to the successful recruitment of African American and other diverse research subjects.

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ORGANIZATIONAL LEVEL RECRUITMENT: RESULTS OF THE NC BEAUTY AND HEALTH PROJECT

Laura Linnan, Sc.D.,1 Katrina Debnam, M.P.H.,1 Veronica Carlisle, M.P.H.,2 Racey Hansen, M.P.H.,2 Kelly Evenson, Ph.D.,1 Kant Bandiwal, Ph.D.,1 and Andrea Biddle, Ph.D.1

1UNC Chapel Hill School of Public Health, Chapel Hill, NC; and 2Lineberger Comprehensive Cancer Center.

Organizational-level recruitment has received very little attention, yet is related to all aspects of study design, implementation and evaluation. The North Carolina BEAUTY and Health Project is a four year RCT in partnership with beauty salons/licensed cosmetologists to test 4 different methods of communicating about cancer prevention. The purpose of this paper is to describe methods used to recruit 61 beauty salons into the trial; and explain results of a sub-study to assess recruitment costs and yield (number signed study agreement forms/number salons approached) from three different recruitment methods. The state licensing board provided a list of 1453 licensed salons within 75 miles of Chapel Hill; 100 salons from the list were randomly selected to pilot test the recruitment procedures: a phone call to determine salon eligibility (e.g. a non-franchise location, serves primarily African American customers, serves at least 75 customers); followed by a site visit to the salon. When an eligible owner signed the study agreement form, the salon was enrolled. We targeted 60 salons for recruitment. After the pilot run-in phase, we randomly selected replicate samples of 100 salons to test different recruitment methods: phone and in-person visits. Advisory Board members also referred specific salons to the study team. Recruitment yield was 4.1% (13/318) phone; 14.4% (32/222) visit; 47.1% (16/34) referral. Cost per signed agreement, and implications for future research that includes organizational-level recruitment will be discussed.

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Faith-based communities have served as venues for health behavior promotion, but few have used partnership approaches. This presentation shares formative research results that informed the development of a participatory weight loss program called The WORD (Wholeness, Oneness, Righteousness, Deliverance). A Health Ministry Team (HMT) from 3 African American churches was formed, and with their help, a health survey assessing health and health needs was distributed (n=71). Results revealed that 75% of respondents were obese and 20% were overweight (BMI>33.8±6.7). The majority reported good (52.1%) or fair (29.6%) general health. About half reported (52.7%) reported eating less than 5 fruits and vegetables a day and an engagement in moderate physical activity several times a month or less (52.7%). Given results about a high prevalence of overweight/obesity, the HMT decided to focus the intervention on weight loss. From the 5 focus groups that were conducted (n=40 participants) emerged the prevalent theme of religion’s relationship with health, including the body as God’s temple, food as temptation, and applying God’s Word. Data from the surveys and focus groups were used to create a multilevel, theory driven, weight loss intervention that connected religious beliefs and health. In addition to informing the intervention’s focus and content, the participatory process identified social structures of the faith community to be used to maximize intervention recruitment and implementation, and created community excitement and support for the intervention.

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FORMATIVE RESEARCH TO DEVELOP THE WORD: A FAITH-BASED, PARTICIPATORY WEIGHT LOSS PROGRAM IN AN AFRICAN AMERICAN COMMUNITY

Karen H. Kim, Ph.D.,1 Christine Brooks,2 Laura Linnan, M.S.Ed., Sc.D.,1 Marci Campbell, Ph.D., M.P.H., R.D.,1 and Harold Koening, M.D.3

1Health Behavior and Health Education, UNC-CH, Chapel Hill, NC; 2JOCCA, Silver City, NC; and 3Behavioral Sciences, Duke University, Durham, NC.

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Paper Session #37

ANALYSIS OF CRITICAL CONSCIOUSNESS

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National attention is focused on alleviating health disparities by adopting new paradigms of research. As a result, community-based participatory research (CBPR) has gained respectability. Yet, engaging active participation has been one of the major stumbling blocks to successful community-based approaches. How do university representatives engage authentic community participation in neighborhoods where learned helplessness has created dependency thinking and where apathy has survival value? Our purpose is to show how photographs and stories were able to generate a social process of critical consciousness that resulted in active participation from residents of a low-income, African American community. Through a community-campus initiative, residents were asked to take photographs of things in the community that made them proud, things they wanted to change, and to tell the story of why these were important. We used strategies from visual anthropology and narrative analysis to analyze the 54 photographs, stories, and dialogue that were produced. While the majority of photographs and stories reflected the community’s sense of invisibility and insignificance to the broader society, the photovoice project allowed them to emerge from a sense of passive adaptation. Our analysis identified three distinct levels of cognitive-emotional interpretations that moved individuals toward active participation. These three levels were labeled emotional engagement, cognitive awakening, and intentions to act. Although CBPR initiatives embrace learning as a social process, learning within a group context represented by historically adversarial race relations requires more than monthly meetings and action plans. Photovoice is a methodological tool that can be used to uncover dangerous truths, disprove false assumptions, and replace unproductive beliefs so the group can move forward.

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FORMATIONAL RESEARCH TO DEVELOP THE WORD: A FAITH-BASED, PARTICIPATORY WEIGHT LOSS PROGRAM IN AN AFRICAN AMERICAN COMMUNITY

Karen H. Kim, Ph.D., Christine Brooks, Laura Linnan, M.S.Ed., Sc.D., Marci Campbell, Ph.D., M.P.H., R.D., and Harold Koening, M.D.

Health Behavior and Health Education, UNC-CH, Chapel Hill, NC; JOCCA, Silver City, NC; and Behavioral Sciences, Duke University, Durham, NC.

Faith-based communities have served as venues for health behavior promotion, but few have used partnership approaches. This presentation shares formative research results that informed the development of a participatory weight loss program called The WORD (Wholeness, Oneness, Righteousness, Deliverance). A Health Ministry Team (HMT) from 3 African American churches was formed, and with their help, a health survey assessing health and health needs was distributed (n=71). Results revealed that 75% of respondents were obese and 20% were overweight (BMI>33.8±6.7). The majority reported good (52.1%) or fair (29.6%) general health. About half reported (52.7%) reported eating less than 5 fruits and vegetables a day and an engagement in moderate physical activity several times a month or less (52.7%). Given results about a high prevalence of overweight/obesity, the HMT decided to focus the intervention on weight loss. From the 5 focus groups that were conducted (n=40 participants) emerged the prevalent theme of religion’s relationship with health, including the body as God’s temple, food as temptation, and applying God’s Word. Data from the surveys and focus groups were used to create a multilevel, theory driven, weight loss intervention that connected religious beliefs and health. In addition to informing the intervention’s focus and content, the participatory process identified social structures of the faith community to be used to maximize intervention recruitment and implementation, and created community excitement and support for the intervention.

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THE FUTURE OF eHEALTH RESEARCH: A QUALITATIVE STUDY

Jennifer M. Kreslake, B.A.; Judith M. Phalen, M.P.H.; and David K. Ahern, Ph.D.

1Health e-Technologies Initiative, Brigham and Women’s Hospital, Boston, MA.

The field of eHealth is emerging and holds promise for improving the accessibility, impact, and reach of evidence-based programs for health behavior change and chronic disease management. To assess the existing challenges and future course of the eHealth landscape, 40 interviews were conducted between May 2002 and September 2003 using a semi-structured approach. Participants were stakeholders in eHealth intervention development and research, purchasers and the private health sector, consumer groups, and practitioners. Audiotaped interviews were transcribed. Qualitative coding and analysis were conducted using NVivo software. Participants discussed various dimensions of eHealth, providing assessments of the quality of interventions, the credibility of demonstrated outcomes, evaluation approaches and methodologies, obstacles and opportunities for dissemination, and the ability of eHealth to address traditionally underserved populations. Distinct themes emerged across sectors, with slight differences in emphases, but overall concordance on these issues: Consensus and Standardization (most stakeholders express a strong desire for a more coordinated, rigorous effort to define and integrate the field); Evaluation Approaches (demonstrating outcomes with validated measures is required to establish eHealth quality and efficacy); Quality, Value and Return of Investment (once investments are made in development and evaluation, the value proposition of eHealth lies in its ease of dissemination and ability to reach a large audience for little incremental cost); and Health Disparities (most stakeholders contend that traditionally underserved populations will benefit particularly from eHealth applications).

While pragmatic in their appraisal of eHealth as a field in its early stages, participants were optimistic about its potential. These results provide a roadmap for guiding eHealth research in the future.

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Meritorious Student Paper
Paper Session #38 11:18 AM–11:36 AM

EVALUATION OF HEALTH INFORMATION ON THE INTERNET BY PEOPLE LIVING WITH HIV/AIDS
Seth C. Kalichman, Ph.D., 1 Chauncey Cherry, M.P.H., 1 Demetria Cain, B.S., 1 Howard Pope, B.A., 1 and Moira Kalichman, M.S.W. 1
1Psychology, University of Connecticut, Storrs, CT.

Background. Access to health information on the Internet has revolutionized how medical patients learn about their illness. However, the Internet is an unregulated medium and many websites contain inaccurate, misleading, or incomplete information. The present study assessed how medical patients obtain and evaluate health information found online. Methods. Men (N=345) and women (N=72) living with HIV/AIDS who currently used the Internet completed measures assessing their Internet use for obtaining health information. Health information downloaded from the Internet was then rated for quality by participants using dimensions identified for critically evaluating health information found online (e.g., accuracy, detail, source). HIV-positive adults commonly used the Internet to find health information (66%), talked to their physicians about information found online (24%), and used the Internet to learn about clinical trials (25%). Using the Internet to search for health information was significantly related to health behaviors and using non-Internet sources of health information. In a multivariate analysis, assigning higher credibility to low-quality Internet information was predicted by lower incomes, less education, avoidant styles of coping and avoidant coping strategies (p < .01). Conclusions. Results suggest that patients with poorer educational backgrounds may engage in coping practices that emphasize avoidance of health information, creating a vulnerability to misinformation and fraudulent claims that are commonly encountered on the Internet.

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Paper Session #38 11:36 AM–11:54 AM

INTERNET: BOON OR BANE? A COMPARISON OF INTERNET, MAIL, AND PHONE METHODS OF DATA COLLECTION
Felicity K. Harper, Ph.D., 1 John E. Schmidt, M.S., 2 Kristi D. Graves, Ph.D., 2 and Michael A. Andrykowski, Ph.D. 2
1Communication and Behavioral Oncology, Karmanos Cancer Institute, Detroit, MI; and 2Behavioral Science, University of Kentucky, Lexington, KY.

The Internet is an increasingly common platform for research. Although concerns have been raised that Internet research may yield different results, it has not been directly compared with other methodologies. Moreover, much of the research has been done in college-age samples. This study investigated whether method of collection (Internet, phone, or mail) differentially influences health-related data in community women.

Women with Internet access (n=238) were recruited from a larger study on ovarian cancer screening. They were primarily Caucasian (99%) and married (73%). Mean age was 56.7 years, and 79% completed some college. Women were randomized to a questionnaire condition (Internet, phone, mail). They completed a range of psychosocial measures including quality of life, mood, social support, social constraints, social desirability, and emotion regulation. Study completion rates were generally high across condition: Internet 91% (n=111), mail 93% (n=56), and phone 98% (n=60). Rates of missing data were low (<3%) in all conditions. MANOVA analyses showed no differences across condition in demographics, F(12,394)=.91, p>.05, level of difficulty or comfort in answering questions, F(4,436)=1.67, p>.05, or measures of quality of life, mood, social support/constraints, social desirability, or emotion regulation, F(14,424)=.93, p>.05.

Findings suggest the Internet does not yield significantly different data in community women when compared to phone and mail methodologies, and as such, can be considered an acceptable alternative for health-related data collection. Selection of data collection method may therefore be better determined by the needs of researchers and participants rather than concerns about data quality.

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Paper Session #38 11:54 AM–12:12 PM

INDIVIDUAL PREFERENCES FOR RECEIVING PHYSICAL ACTIVITY INTERVENTIONS VIA THE INTERNET OR PRINT
Beth Lewis, Ph.D., 1 Melissa Napolitano, Ph.D., 2 and Bess Marcus, Ph.D. 2
1Health Partners Research Foundation; and 2Brown Medical School & The Miriam Hospital.

Half of Internet users access the Internet for health-related information. Consequently, researchers have begun to examine the efficacy of Internet interventions for physical activity promotion (e.g., Marshall et al., 2005). The objective of this study was to examine preferences for Internet versus print-based physical activity interventions among individuals enrolled in a randomized controlled trial examining the efficacy of these interventions. Specifically, prior to randomization, healthy, sedentary participants (n=159) who had access to the Internet reported their preferences for type of intervention as well as their anticipated compliance to the intervention if they received their preferred or non-preferred intervention. The content of the intervention was identical, only the channel (Internet vs. print) differed. We found that 61% of participants preferred to receive the Internet intervention and 39% preferred the print intervention. Considering anticipated compliance, 84.3% reported that they would be “very compliant” if they received the intervention they preferred and 61.0% reported that they would be “very compliant” if they received the intervention they did not prefer. Also, 42.1% reported that they would be “very likely” to increase their physical activity if they received their preferred intervention and 28.3% reported that they would be “very likely” to increase their physical activity if they received their preferred intervention. The influence of preference on actual compliance will also be explored. Our findings indicate that receiving one’s preferred or non-preferred intervention may influence compliance. Future studies should examine the efficacy of matching individual preferences to type of delivery channel.

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Paper Session #38 12:12 PM–12:30 PM

EVALUATION OF AN EVIDENCE-BASED, TAILORED MESSAGING WEB SITE FOR CANCER MULTIPLE RISK FACTOR REDUCTION
David K. Ahern, Ph.D., 1 Lucille A. Cardella, Ph.D., 1 Stefany Palmieri, B.S., 1 Bess Marcus, Ph.D., 2 Kim Gans, Ph.D., 2 George Papadonatos, Ph.D., 2 and Chris Sciama, M.D. 2
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The impact of an evidence-based, interactive website on the outcomes of physical activity (PA), smoking (SM), and fruit and vegetable (F&V) intake from baseline to 3 months was evaluated in a randomized, active control trial using multiple outcome measures. The sample consisted of 227 participants including both English- and Spanish-speaking persons, both experienced and inexperienced computer users, and who were demographically diverse in terms of age, race, sex, ethnicity, and income levels. The Latino and low-income populations were over sampled (14.2%) as compared to the proportion in Rhode Island (9.2%). Sixty participants were smokers.

The intervention consisted of three components: (1) the availability of brief, tailored PA, SM, and F&V intake messages; (2) two summary reports for participating physicians to guide their behavior risk factor counseling; and (3) access to health information on cancer risk modification via Web or print materials sent to the home for participants without Internet access. The control consisted of 12 brochures mailed to the home on health behavior change. Results indicated that both groups changed significantly from baseline on PA and F&V intake, and although the web group had a higher mean/median change for both PA and F&V intake, the differences were not statistically significant. However, participants with multiple log-ins increased their physical activity and fruit and vegetable intake incrementally. Findings according to socioeconomic and ethnic status in age and outcomes will be presented.

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2005 Annual Meeting Supplement S211
ASSOCIATION OF NEUROCOGNITIVE FUNCTION AND QUALITY OF LIFE ONE YEAR AFTER CABG SURGERY

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Background: Although coronary artery bypass grafting has been shown to improve quality of life for many patients, a significant number exhibit impairment in cognitive function immediately following surgery and beyond. We sought to determine the impact of postoperative cognitive dysfunction on quality of life.

Methods: With IRB approval and written informed consent, 732 patients at Duke University Hospital undergoing CABG were enrolled. 551 completed baseline, six-week, and 1-year neurocognitive and quality of life assessments. Neurocognitive status was assessed by a composite cognitive index score. Change in quality of life was assessed with 9 measures of QOL. Associations between QOL and cognitive dysfunction were investigated using multivariable linear regression analysis.

Results: Cognitive decline limited improvement in quality of life with substantial association demonstrated between change in cognition and change in quality of life. One year QOL is associated with both 6-week and 1-year change in cognition (AβADL, p<0.001; DASI, p<0.02; Cognitive Difficulties, p<0.001; Symptom Limitations, p=0.001; CESD, p<0.001; General Health Perception, p=0.001).

Conclusions: Postoperative cognitive decline may diminish improvements in quality of life associated with CABG. Strategies to reduce cognitive decline may allow patients to achieve the maximum improvement in quality of life afforded by CABG, as even short term cognitive dysfunction has implications for QOL 1 year later.

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DO OLDER PATIENTS IMPROVE AS MUCH AS YOUNGER PATIENTS BY CHANGING DIET AND LIFESTYLE? RESULTS FROM THE MULTISITE CARDIAC LIFESTYLE INTERVENTION PROGRAM

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Lifestyle changes have been shown to improve cardiac status in patients with coronary heart disease (CHD), though it is less clear whether this finding applies to all age groups. Medical and psychosocial risk factors were assessed at baseline and 3 months for patients with CHD or at least 3 risk factors enrolled in a non-proprietary lifestyle modification program (very low-fat diet, exercise, stress management, and group support) at 21 hospital sites. The younger age group (<65 years) consisted of 943 patients (48% female), the older age group (>65 years) of 287 patients (47% female). ANOVAs with repeated measures demonstrated that patients in all 4 groups (older and younger men, older and younger women) had excellent adherence and showed similar, significant improvements in medical and psychosocial risk factors. After 3 months, patients in the 4 groups lost an average of 9 to 13 lbs, systolic and diastolic blood pressure decreased between 6% to 9% and LDL-C decreased 12% to 19%, depression (CES-D) decreased 34% to 48%, and there were significant improvements in METS, hostility (Cook-Medley), and all eight subscales of the SF-36 (all p<0.001). Patients who have reached the 1-year time point (n=604) show similar outcomes. These results suggest that both younger and older patients of both genders can make comprehensive lifestyle changes with clinically and statistically significant improvements in medical and psychosocial status.

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EFFECT OF THE CHANGE INTERVENTION ON LIFESTYLE EXERCISE AFTER CARDIAC EVENTS

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In this randomized trial of 250 participants, we evaluated the effectiveness of CHANGE, a lifestyle modification program designed to increase exercise maintenance following a cardiac event. The CHANGE intervention consists of five small-group counseling sessions in which participants are taught self-efficacy enhancement, problem-solving skills, and relapse prevention strategies to address their identified exercise maintenance barriers. Participants (155 men, 95 women) had a mean age of 62 y (range 38-86 y) and were Caucasian (81%) or African American (17%). Exercise was measured using portable wristwatch heart rate monitors worn during exercise for one year. Cox proportional hazards regression was used to determine differences in exercise maintenance over the study year between the CHANGE group and a comparison group receiving usual care. Results indicated that participants in the usual care group were 76% more likely than those in the CHANGE group to stop exercising during the year following a cardiac rehabilitation program (hazard ratio 1.76, 95% confidence interval 1.08-2.86, p = .02) when adjusting for significant covariates race, gender, co-morbidity, muscle and joint pain, and baseline motivation. We conclude that counseling interventions of sufficient dose that utilize contemporary behavior change strategies can reduce the number of individuals who do not exercise following cardiac events; however, the general trend reveals less than recommended levels of physical activity participation.

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MOTIVATIONAL PREDICTORS OF PHYSICAL ACTIVITY MAINTENANCE IN PATIENTS WITH CORONARY HEART DISEASE

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This research was to determine which contextual and behavioral change process variables within a wellness motivation theory were significant predictors of physical activity (PA) maintenance among individuals with coronary heart disease (CHD). A longitudinal survey was conducted over 6 months following graduation from cardiac rehabilitation. Measures were taken within two weeks (T1), 3 months (T2), and 6 months (T3). 183 participants completed the study (76% male, 94% Caucasian, age 63.6 (±10.24), years of education 15.9 (±3.33). Four categories of variables were tested. PA was measured characterizing type, frequency, and duration (Singleton et al., 1994). Behavioral change process variables included the self-knowledge measure Possible Selves Questionnaire (Cross & Markus, 1991); the motivation appraisal measure Index of Readiness (Fleury, 1994); and the self-regulation measure Index of Self-regulation (Fleury, 1996). Contextual influence variables included perceived environmental resources (Sallis et al., 1997) and social support (Sallis, 1987). Demographic variables included age, gender, education, and comorbidity. Structural equation modeling (SEM) tested the theoretical model for PA maintenance. SEM analysis supported hypothesized relationships between variables of self-knowledge, motivation appraisal, self-regulation, and PA maintenance. A reduced model explained 9% of the variance at T1, 44% at T2, and 59% at T3. The overall fit of the reduced model was X2(227, n = 183) = 361.821, p = .000. Relative fit indices were above .90, indicating a good fit of the theoretical model to the data. Specification of relationships among model concepts may guide development of theory-based interventions to enhance motivation in maintenance of PA in patients with CHD.

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CAREGIVER ROLE PERCEPTIONS OF “THE SANDWICH GENERATION” WOMEN WHO EXPERIENCED ACUTE MYOCARDIAL INFARCTION (AMI)

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Background. Midlife women have been referred to as the “sandwich generation” providing care simultaneously to children and elders. Midlife women’s health problems in post heart disease role adjustment reflect lower role perceptions.

Purpose: This prospective, longitudinal study investigated role perceptions, workload and psychological health over time following AMI. Sample: The convenience sample included 50 women following AMI, mean of 53.6 years (SD 8.19) years, 32% African American, 56% high school graduates or less, 60% family incomes less than $40,000. Method: Pre-AMI and 2-3 month data were collected about role rewards, concerns, workload and mental health. Data were examined using descriptive statistics, t tests, and linear regression. Findings: Role rewards and concerns significantly decreased over time (p<.001, p<.001) however no significant differences were found caretaking workloads. Using linear regression, pre-AMI role concerns and summary mental health status at 2-3 months explained 41% of the variance and significantly predicted the role concerns at 2-3 months (p<.001, p=.047). Eleven women (22%) cared for dependent children; 18 (36%) for grandchildren (range 2-168 hours); 5 (10%) for elders (range 3-65 hours). Discussion: Data provide support for the “sandwich generation” and psychological factors as important determinants of recovery following AMI. Implications of this research include addressing psychological and role factors in the cardiac disease recovery process.

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MODERN PSYCHOMETRICS AND HEALTH OUTCOMES ASSESSMENT

Jakob B. Bjorner, M.D., Ph.D.,1,2 and John E. Ware, Jr., Ph.D.1,2
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Health outcomes assessment has become a standard mode of tracking the effects of behavioral medicine clinical research. Yet the use of paper-and-pencil static tools can pose logistical problems that challenge data quality and precision. Computerized adaptive testing (CAT) tools provide dynamic assessment of health that is tailored to the individual and thus is more relevant and precise. The objective of this seminar is to provide: (1) Understanding of item response theory (IRT) methods of scale construction and how they compare with “classical” methods; (2) Appreciation of the potential of IRT and CAT for achieving more practical and comparable tools; and (3) Discussion of recommendations regarding next steps in the pursuit of these potentially revolutionary advances. The workshop will provide an overview of patient-reported outcomes and advances in technologies that underlie measurement construction and data capture. We will explain the logic of IRT and CAT, and illustrate their practical implications for population surveys, clinical trials and individual patient-level assessments using examples from recently published applications of generic and disease-specific outcomes. We will discuss: item trace line exploration; factor analysis of categorical data; IRT modeling; and CAT logic applied to computerized dynamic health assessment. Other advanced topics that will be introduced include: testing for differential item functioning across diseases, languages and other groups; estimation of item and test “information functions” at specific scale levels and their implications for estimating score reliability and confidence intervals for individual patients; using IRT models for missing data estimation; and cross-calibration of widely-used measures. Handouts include a bibliography of useful and accessible readings.

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Seminar #10 2:00 PM–5:00 PM

DOING POLICY RESEARCH ON PHYSICAL ACTIVITY

James Sallis, Ph.D.,1 William Ascher, Ph.D.,2 and Tom Schmid, Ph.D.3
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A broad range of policies from government, corporate, and non-profit organizations are believed to affect physical activity. For example, zoning laws affect the pedestrian-friendliness of community design, school policies affect the availability of schools for physical activity outside of school hours, and policies of insurance companies control incentives for being physically active. Few studies have examined the relation between policy and physical activity, but such studies are needed to identify policy changes with the potential to increase physical activity in the population. The Centers for Disease Control and Prevention (CDC) and The Robert Wood Johnson Foundation’s Active Living Research Program (ALR) have initiatives to fund physical activity policy studies. Because most behavioral medicine researchers have limited experience with policy research, this Seminar is designed to prepare investigators to develop competitive proposals. James Sallis and Tom Schmid will describe physical activity policy research priorities at CDC and ALR, including upcoming Calls for Proposals. Tom Schmid will present a definition and model of physical activity policy research, describe CDC’s policy research agenda, and outline CDC/WHO efforts to promote physical activity through development of national physical activity policies. William Ascher will provide an overview of the policy research field, including common study designs and methods. He will offer guidance on policy research journals, professional organizations, leading training programs, and how to identify appropriate collaborators. Written materials will be distributed, and there will be ample opportunities for question and answer.

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Seminar #11 2:00 PM–5:00 PM

POWER ANALYSIS AND EFFECT SIZE: KEY COMPONENTS TO SUCCESSFUL GRANT DEVELOPMENT IN BEHAVIORAL MEDICINE

Joseph S. Rossi, Ph.D.,1 and Kara L. Hall, Ph.D.2
1Cancer Prevention Research Center, University of Rhode Island, Kingston, RI, USA; 2Department of Preventive Medicine and Community Health, University of Rhode Island, Kingston, RI, USA.

This seminar will provide participants with a thorough understanding of the conceptual and practical aspects of statistical power analysis and effect size statistics, especially as related to developing successful NIH grant proposals. A sequential approach will be taken, starting with the most basic study designs showing the interrelationships between power, effect size, sample size, and alpha level. The presentation will build on this foundation to include more advanced aspects of power and sample size determination, including alpha adjustment for multiple outcome variables, repeated measures designs and autocorrelation effects, multilevel (clustered sampling) designs and intraclass correlation, dichotomous vs. continuous variables, measurement reliability, missing data and intent-to-treat analysis, and multivariate analysis, including structural equation modeling. The confusing array of effect size indices currently in use will be explained and illustrated, along with methods for extracting effect size information from published studies. Use of meta-analysis as an aid for determining power will also be presented, as will the controversial issue of using post hoc power analysis to interpret findings of no differences between groups. Finally, currently available software for calculating power will be discussed. Primary emphasis will be on conceptual understanding and the practical aspects of using this information in the context of grant writing and proposal development, using illustrations from actual grant proposals. The information presented will be kept at a level such that those with a basic understanding of statistics will be able to follow without difficulty. The presentation and the handouts will provide enough information for attendees to conduct many of the methods described.

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Seminar #12 2:00 PM–5:00 PM

IMPLEMENTING BEHAVIOR CHANGE INTERVENTIONS INTO REAL WORLD CLINICAL SETTINGS

Barbara Resnick, Ph.D.,1 C.R.N.P.,1 Barbara Walker, Ph.D.,2 Denise B. Ernst, Ph.D.,3 Ellen A. Dornelas, Ph.D.,4 Jennifer Swaim, Ph.D.,5 Pam D. Martin, Ph.D.,6 Caren Jordon, Ph.D.,7 Phillip J. Brantley, Ph.D.,8 Mary Velasquez, Ph.D.,9 and Rene J. McGovern, Ph.D.9
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There is an increasing base of evidence on which to build clinical practice related to health promotion in the areas of exercise, diet, weight loss, and alcohol and smoking cessation; however, challenges still exist in terms of how to translate those findings into real world clinical situations. The purpose of this symposium is to describe how behavior change interventions are implemented in routine clinical care. These interventions cover a variety of clinical areas including: exercise in older adults, smoking cessation, reduction in alcohol, and weight loss in high risk and low income Minority groups. Intervention techniques include Motivational Interviewing, self-efficacy based interventions, and Stage of Change Theory among others. The programs described how, using these theoretical approaches, individualized interventions are matched to the patient to optimize outcomes. For example, one of the family practice clinicians utilizes a variety of techniques to treat substance abuse in adults. In addition to brief overviews of these interventions, challenges related to implementation of behavior change interventions in the real world will be addressed and tricks of the trade for overcoming these challenges will be provided. Techniques such as time management, ways to address billing and reimbursement, and allocation of appropriate resources will be considered. Participants will not only be provided with tools related to the specific interventions but will be armed with ways to implement these interventions in their own clinical sites.

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WITHDRAWN
Seminar #13  2:00 PM–5:00 PM  

COORDINATING A MULTIDISCIPLINARY WEIGHT MANAGEMENT PROGRAM  

Matthew M. Clark, Ph.D., 1 and Vincent Pera, M.D. 2  

1Department of Psychiatry and Psychology, Mayo Clinic, Rochester, MN; and  
2Department of Medicine, Brown University Medical School, Providence, RI.  

Obesity is a significant public health problem. Many obese individuals will seek medical treatment for their health problems. This seminar will review guidelines for combining behavioral strategies, exercise interventions, pharmacotherapy, and nutritional recommendations. The presenters co-directed a hospital based multidisciplinary weight management program for over ten years and have research and clinical experience on how to integrate treatment. This seminar will review components of a multidisciplinary evaluation, evaluate patient-treatment matching models, discuss exercise interventions, and outline goals of treatment. Participants should learn state-of-the-art treatments for obesity, information on anti-obesity medications, and strategies for organizing an integrated, multidisciplinary treatment program. The information will be practice-oriented, and several case examples will be provided.  

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Seminar #14  2:00 PM–5:00 PM  

USING LATENT GROWTH CURVE MODELING IN BEHAVIORAL MEDICINE RESEARCH: A PRIMER  

Scott C. Roesch, Ph.D. 1  

1Psychology, San Diego State University, San Diego, CA.  

This seminar will be an introduction and practical guide to using latent growth curve modeling (LGCM) in behavioral medicine research. LGCM allows researchers to evaluate the functional form (e.g., linear, quadratic) of a variable (e.g., quality of life) over time (as represented by a slope term). Moreover, growth processes within discrete groups (e.g., intervention versus control) can be directly compared to determine if a target intervention improves an outcome variable relative to the control group in both the short- and long-term. The initial status, intermediary status, and final status (as represented by an intercept term) can be assessed from this framework, allowing for the identification and inclusion of moderator variables. To elucidate these issues, two examples will be provided. The first will explore linear and nonlinear growth processes for a quality of life variable assessed in prostate cancer patients over the course of 5 years. Next, an example comparing the growth process of prostate cancer patients who receive a problem-solving skills intervention to a control group will be explored. In the context of these examples statistical software (EQS, Mplus) will be used to demonstrate how these analyses can be conducted and interpreted. A comprehensive bibliography, PowerPoint slides, a sample Results section, and statistical software syntax will be provided to each participant.  

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Seminar #15  2:00 PM–5:00 PM  

EFFECTIVE STRATEGIES FOR PROMOTING HEALTH BEHAVIOR CHANGE AFTER CANCER: WHY AND HOW?  

Bernardine M. Pinto, Ph.D., 1 Kerry S. Courneya, Ph.D., 2 Wendy Demark-Wahnefried, Ph.D., R.D., L.D.N., 3 and Jamie Ostroff, Ph.D. 4  

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This seminar is aimed at healthcare providers, clinicians and researchers (e.g., oncologists, nurses, clinical psychologists, exercise specialists, physiotherapists, dietitians) interested in health promotion programs for cancer patients. Attendees will learn about the rationale for diet, exercise and smoking behavior change among cancer patients and survivors, the determinants of these behaviors and behavior change strategies. Issues such as gaining institutional support, establishing interdisciplinary collaboration and addressing challenges in recruitment and retention of patients at varying points in the disease recovery continuum will be discussed. The presentations will also focus on assessment methodology, and interventions (e.g., in-person, home-based, distance-medicine based formats) targeting unhealthy diets, sedentary behavior and smoking among those diagnosed and treated for cancer. The format will include didactics, case presentations, and small group discussion.  

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