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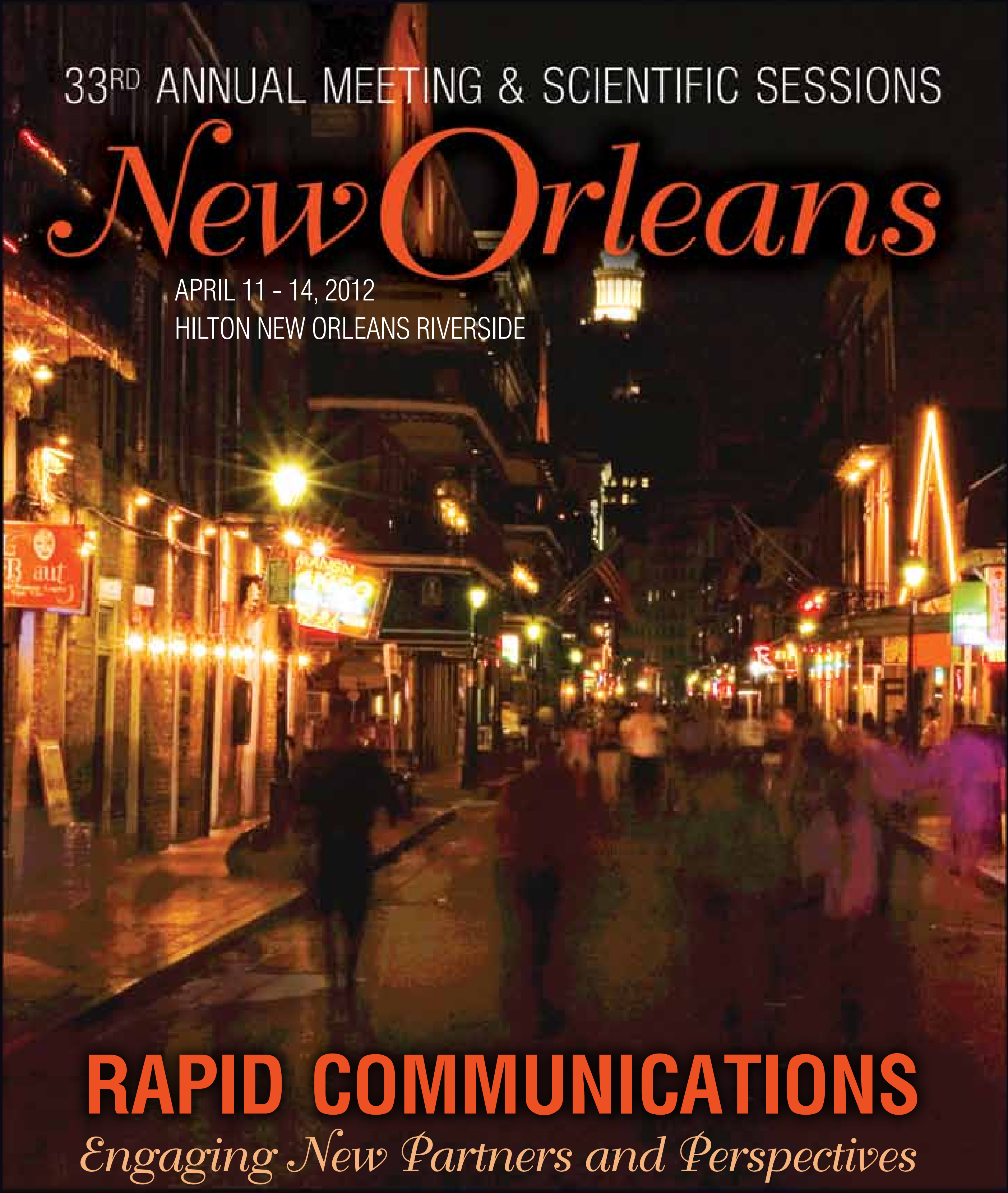

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Wednesday, April 11, 2012

6:30 PM - 8:00 PM

A-034a

THE ROLE OF SOCIAL SUPPORT IN POST-TREATMENT SURVEILLANCE AMONG AFRICAN AMERICAN COLORECTAL CANCER SURVIVORS

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Objectives: African Americans are less likely than other groups to receive appropriate surveillance after colorectal cancer (CRC) treatment. The objective of this study is to understand what motivates or hinders surveillance behaviors in a sample of African American CRC survivors. Issues explored included knowledge about surveillance protocols, economic barriers, support from family, friends and church, and the role of faith.

Methods: Interviews were conducted with 60 African American CRC survivors recruited from the Alabama Cancer Care Outcomes Research and Surveillance (CanCORS) study and the Alabama Statewide Cancer Registry. Interviews were recorded and transcribed. Transcripts were reviewed and coded independently by the authors. The NVivo software package was used to facilitate coding and data management.

Results: Survivors were from 4 to 6 years post diagnosis, 57% female, 60% older than 65 years, 57% from rural Alabama, 30% with stage 1, 32% with stage 2, and 38% with stage 3 disease. Material and emotional support from family and from one's faith community were cited as playing an important role in coping with the disease and post-treatment follow-up. Patients who reported being compliant with post-treatment surveillance recommendations (according to stage of disease based on self-report of colonoscopy, CT scans and blood work) reported more religious material and non-material support, and support from other CRC survivors.

Conclusions: In these African American CRC survivors, support from family, other cancer survivors and the faith community is important. Interventions to increase post-treatment surveillance in this population may be enhanced by including components that emphasize familial, other cancer survivor, and religious support.

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A-034b

CULTURALLY-TAILORED MINDFUL WEIGHT LOSS IN BLACK BREAST CANCER SURVIVORS

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Background: Black women have increased breast cancer recurrence and mortality risk relative to whites and this may be due in part to higher rates of overweight and obesity in this group. Weight loss may reduce the risk of recurrence, but achievement and maintenance of weight loss are difficult using standard approaches. Mindfulness, focused non-judgmental attention on the present moment, is associated with improved weight loss outcomes in non-cancer populations. The study evaluates feasibility of a culturally-tailored mindful weight loss intervention in black breast cancer survivors.

Methods: This 6-month pilot study was conducted in a population of black women who completed adjuvant chemotherapy and radiation treatment for breast cancer. Subjects completed 4 individual and 4 group counseling sessions over three months, led a registered dietician (RD), and was followed by telephone support for three additional months. Mindfulness training occurred during group meetings and individual counseling. The culturally-tailored component of the intervention included group sharing of cooking traditions that were modified by the RD.

Results: This study has accrued 15 of expected 25 overweight and obese (BMI 28-47 kg/m2) subjects aged 50 (range 33-75) years. Attendance rate at individual and group sessions was 89%. At 3 months body weight ± S.E.M. decreased from 97.2 ± 10.8 to 95.1 ± 10.9 kg (p=0.02). BMI also decreased from 35.3 ± 1.2 to 34.6 ± 1.3 kg/m2 (p=0.04). Scores on the Mindful Eating Questionnaire (p=.015) as well as Healthy Promoting Lifestyle Profile II Questionnaire (p=.002) increased, indicating improvement in attention to eating and practice of health promotion behaviors, respectively.

Conclusions: Our preliminary results demonstrate the feasibility and successful weight loss of this culturally-tailored mindful intervention and suggest a promising approach for weight loss in this disparate breast cancer survivor population.

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A-034c

EXPLORING THE PSYCHOSOCIAL NEEDS OF URBAN AND RURAL PATIENTS WITH METASTATIC BREAST CANCER

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Purpose/Introduction: Although the psychosocial needs of patients with breast cancer are well established, less is known about the specific psychosocial needs of patients with metastatic breast cancer (MBC). Limitations of previous research have been identified as being the paucity of studies and the possibility that the identified concerns were driven by the researchers. The purpose of this study was to utilize focus groups of patients with MBC to document their self-identified concerns.

Methods: Women diagnosed with MBC were recruited from clinics at an urban academic medical center and a rural cancer center. Three semi-structured 90 minute focus groups were conducted. Sessions were audio-taped and transcribed.

Results: Participants (n = 13, 9 urban, 4 rural) were 92% White non-Hispanic women, had a mean age of 57.15 +/-12.32 years, and had been living with metastatic disease for 3.26 +/- 3.83 years. Concerns included: The need for more information about treatment, changes in relationships within the family, guilt for the worry and financial burden their cancer incurred, sexuality and body image, communication regarding the patient's thoughts and needs, uncertainty regarding their prognosis, and dissatisfaction with other health care providers' knowledge regarding needs of survivors. There were no significant differences in concerns expressed across women from rural and urban areas.

Conclusions: The self-identified concerns of patients with MBC included practical issues such as finances and wanting more information on treatment options. More abstract concerns ranged from living with uncertainty, feeling guilty for the burden their cancer caused, communication with others, and changes in relationships. Future interventions addressing the psychosocial needs of patients with MBC should target these needs.

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A-034d

LONG-TERM CANCER SURVIVORSHIP: PREVALENCE OF COMORBID DISEASES AND INFLUENCE ON PSYCHOSOCIAL OUTCOMES

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Intro:

Survivors of cancer represent a growing population who are at an increased risk of recurrence as well as comorbid disease and late and long term effects of treatment. This burden can exacerbate distress, impair quality of life, and require increased levels of personal coping and symptom management. The current study sought to examine the prevalence of comorbid disease and its relationship to patient-reported outcomes.

Method:

A sample of 342 cancer survivors (M age=62.8 years, female=70%, M years since treatment=8) completed demographic and health history information forms, as well as measures of self-efficacy, quality of life and distress, by mail as part of a larger study.

Results:

Participants reported a mean of 1.5 comorbid disease conditions (Range: 0-7). The most frequently endorsed condition was hypertension (50%), followed by arthritis (25%), stroke/CVA (20%), thyroid problems (13%) and heart disease (12%). The number of comorbid conditions endorsed was positively correlated with measures of anxiety and depression (.18 to.22, p's<.01) and inversely associated with quality of life (-.25, p<.01). To further explore the impact of comorbid disease, survivors were grouped into groups of '0', '1' or '2+' comorbid conditions. Analysis revealed that participants with as few as one comorbid condition reported significantly impaired quality of life (p<.05) compared to those with none, while participants with 2 or more comorbid conditions reported significantly greater depressive symptomatology than those with no comorbidities.

Discussion:

Long-term survivors of cancer may be managing significant disease comorbidity. The presence of multiple comorbidities was associated with significant impairment of quality of life and increased depressive symptomatology. Care providers should be vigilant in monitoring possible depressive symptoms in survivors managing multiple comorbid conditions.

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A-034e

SPIRITUAL SELF-EFFICACY AND QUALITY OF LIFE IN CANCER SURVIVORS

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Reviews of research have established the positive relationship between religiosity/spirituality (R/S) and psychosocial outcomes; however, they also emphasize that the mechanisms or processes involved in coping are not well specified. Moreover, while R/S has been well-studied for in-treatment cancer patients, less is known about R/S in cancer survivors. This study tested a new approach by casting R/S coping in the context of self-efficacy theory, thus elevating R/S into the larger theoretical realm of self-regulation. Hypothesis: survivors' confidence in engaging their R/S beliefs and practices would be a significant predictor of their quality of life.

Method: N=115 cancer survivors (95 Caucasian - CA; 20 African American- AA; mean 9 years post-treatment; mean age 64; majority breast cancer). All were given the following: Demographic/ Medical Information Questionnaire; Cancer Behavior Inventory (CBI: self-efficacy for coping), which contained 7-scales and the new self-efficacy for spiritual coping scale (CBI-Sp); and the FACT-G (quality of life).

Results: With the total FACT score as the criterion, hierarchical regressions were conducted controlling for age, education, income and sex. The 7 subscales of the CBI were entered along with the CBI-Sp. With an RSQ of .68, the following were significant predictors in order of magnitude of the Bs: Accepting Cancer/Positive Attitude (B=.350, p<.01); Maintaining Activity (B=.234, p<.05); CBI-Sp (B=.208, p<.01). Exploratory analyses by race revealed the following according to the magnitude of the Bs: for AAs; RSQ = .85; Accepting Cancer/Positive Attitude (B=1.105, p<.05), CBI-Sp (B=.632, p<.05). For CAs; RSQ = .68; Maintaining Activity (B=.322, p<.05), CBI-Sp (B=.166, p<.05).

Discussion: The conceptualization of R/S as active engagement of coping resources 1) elucidates R/S coping processes as fostering self-regulation and 2) indicates that interventions to foster efficacy may include spiritual efficacy in cases where that is a compatible method of coping.

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A-034f

PARENT AND CHILD STRESS DURING TREATMENT OF CHILDHOOD CANCER: A CASE-CONTROL STUDY

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The present study assessed stress and adjustment levels among parents and children recently diagnosed with Acute Lymphoblastic Leukemia or Lymphoma compared to a healthy control group. Our primary aim, Aim 1, was to explore how cases' stress and adjustment levels compare to a healthy population at different time points and how these levels change over time. Aim 2 was to determine the extent to which parent stress at Time 1 is correlated to change in child anxiety as measured by the Multidimensional Anxiety Scale for Children (MASC). Aim 3 was to explore the relationship between parents' cancer-related stress, using the Parent

Experience of Child Illness Scale (PECI), and the change in child anxiety (MASC).

Cases were recruited within 5 months of diagnosis and followed up at 6 months and 12 month post baseline Additionally, age and gender matched controls were enrolled. At each time point, both case and control parents completed the Perceived Stress Scale (PSS), Brief Symptom Inventory (BSI), and Child Behavior Checklist (CBCL) measures while all children completed the MASC. Case parents also completed the PECI.

At Time 3, cases were more elevated than controls on the PSS (M = 21.5, SD = 9.7 vs. M = 15.7, SD = 5.8, p = .03) and BSI total (M = 55.7, SD = 11.0 vs. M = 43.9, SD = 9.6, p < .0001). Controlling for baseline level, the percent change in PSS and BSI is significantly greater among cases than controls (20% vs. 14%, p=.03; and 55% vs. 43%, p = .02, respectively)

While the declines in overall stress and improved adjustment among case parents is encouraging, they are still significantly higher in their levels of stress than control parents. Further, this study supports previous findings that parent and child stress are correlated, while extending this literature by illustrating that this trend persists when compared to a matched control population.

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A-034g

WOMEN AT HIGH RISK FOR BREAST AND OVARIAN CANCER DUE TO A FAMILY HISTORY OF CANCER

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Many women at high risk for breast cancer have a BRCA1/2 genetic mutation that puts them at highly elevated risk for both breast and ovarian cancer. This study surveyed a sample of 1885 women getting mammograms who reported a family history including at least one first or second degree relative with breast cancer. Of these 738 were at high-risk for a mutation based on a family history of disease in a first-degree relative less than 50 years of age, or multiple first and second degree relatives with breast and/or ovarian cancer. Most of these high-risk women (65.6%) knew their risk for breast cancer was higher than average, but only 21.8% knew that this was also likely the case regarding their risk for ovarian cancer. Most (73.6%) thought they were candidates for genetic testing but only 17.8% had received genetic counseling, and few had received testing. High risk women who had received genetic counseling were more likely than those who had not to know their risk for ovarian cancer was elevated (37.5% vrs. 18.9%; p < 0.01), and to receive each of the two possible tests used for ovarian cancer screening in high risk women; CA125 blood tests (25.0% vrs. 14.1%; p < 0.05), and transvaginal sonagraphy (22.2% vrs. 9.8%; p < 0.01). Most of the high risk women reported little or no worry about their risk for ovarian cancer (87.9% vrs. 91.2%) and differences in worry associated with genetic counseling were not statically significant. This research suggests that in spite of knowledge that a family history of breast cancer puts one at elevated risk for cancer and may indicate a genetic mutation, most don't understand their risk of ovarian cancer, and only a modest percentage of women at high risk for a BRCA1/2 mutation get genetic counseling. Genetic counseling does appear to be an effective intervention to improve knowledge of ovarian cancer risk and use of screening in a high risk population and to do so without increasing worry about ovarian cancer.

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A-034h

STUDYING THE NEUROENDOCRINE FUNCTIONING IN CHINESE BREAST CANCER PATIENTS UNDERGOING RADIOTHERAPY

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Most breast cancer patients undergoing radiotherapy treatment experience a number of side effects including skin damage, fatigue and sleeping problems. These symptoms are seriously affecting the quality of life of patients and causing them lots of negative emotions. Anxiety is one of the common negative emotions commonly found in breast cancer patients undergoing radiotherapy. Negative emotion can adversely affect the human immune system and possibly damage the physical health of cancer patients.

This study aims to explore the relationships between regulation of Hypothalamic-Pituitary-Adrenal (HPA) and negative emotions. The neuroendocrine function (diurnal slope of salivary cortisol) in low anxiety and high anxiety breast cancer survivors undergoing radiotherapy would be examined.

Participants were drawn from a study of the effect of dance/movement-based psychotherapy program in Chinese breast cancer patients undergoing radiotherapy. They completed the Chinese Hospital Anxiety and Depression Scale and provided saliva samples for assessment of cortisol values.

Participants collected saliva samples upon awakening, 45 minutes post-awakening, at at noon, 1700, and 2100 on one day.

High anxiety participants had a significantly flatter cortisol slope (t(56) = -2.17; p<.05) than low anxious participants, with a slower decline in cortisol levels in the evening hours.

Understanding the relationship between HPA axis functioning dysregulation and negative emotions in breast cancer patients could provide useful information to helping professionals, where effective psychological interventions or education focused on strengthening the emotional health should be provided to breast cancer patients undergoing treatment.

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A-034i

THE INFORMATION SEEKING AND TECHNOLOGY USE BEHAVIOR OF ADOLESCENT YOUNG ADULT CANCER SURVIVORS

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Advancements in treatment have resulted in a rapidly growing number of adolescent and young adult (AYA) cancer survivors. These survivors are at risk for a number of adverse health outcomes as they transition into their adult years. Thus, it is important to provide this group of survivors with accurate evidence-informed health education information. To do this, it is necessary to better understand how AYA currently seek information about their health and cancer diagnosis and how they use technology to accomplish this. The primary aim of this study was to survey AYA cancer survivors about their past health information seeking behavior, their preferences for health information format and access and their access to technology.

The design was cross-sectional. Clinicians in the survivorship clinic identified and referred eligible participants between the ages of 15 and 30. The paper-based survey included a number of questions about media and technology use with Likert-style response options. Responses were collected for information sources subjects reported using in the past, sources they would be interested in using in the future and their self-reported computer and mobile phone use by task type.

Final analysis included the responses of 39 cancer survivors (AYA at the time of diagnosis, at least two years post therapy); 54% were female, 57% were under the age of 20 and 80% were Caucasian. All respondents (100%) indicated having regular access to a computer, 95% to a mobile device. More than 64% had sought information related to their health in general and 50% reported seeking information related to their cancer diagnosis.

As a group, these AYA cancer survivors favored the internet above all other sources for information about their health both for past and future use. This group reported having excellent access to computing and communications devices which they regularly use. However, a significant proportion do not use them to search for information about their health (36%) or their cancer diagnosis (50%).

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A-034j

TAILORED COLORECTAL CANCER SCREENING INTERVENTION FOR MEDICALLY UNDERSERVED LATINOS

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Latino colorectal cancer screening rates at 46.5% for men and 51.0% for women are significantly below the 70.5% the Healthy People 2020 benchmark. This screening disparities denies the benefits of preventive care and early detection to Latinos and puts them at higher risk for late-stage cancer diagnoses and lower chances of survival.

This intervention uses innovative touchscreen kiosks to overcome cultural, linguistic, and cognitive barriers experienced by low-income, low literacy Latinos. It leverages the interactive features of the kiosks to present culturally and linguistically appropriate messages tailored to the person's language preference, age and gender. This patient-centered design featured behavioral models and made extensive use of video segments and animation to convey complex information in clear and compelling fashion. It also presents visually compelling multimedia content in the form of video, audio, text, graphics and animation to engage, educate and motivate Latinos to get screened for colorectal cancer. Notwithstanding its technological features, the intervention is predicated on the use of behavioral models to deliver intervention messages that engage the viewer.

A randomized controlled efficacy study found that the intervention significantly improved screening behavior. Despite modest knowledge and self-efficacy gains, the majority of study participants, 53%, obtained colorectal cancer screening. The use of behavioral models and credible portrayals of behaviors that overcome known barriers to screening suggests that the intervention content resonated well with low-income Latinos. Indeed an effect size of this magnitude indicates that the intervention effectively overcame cultural and cognitive barriers.

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A-034k

DIFFERENCES IN COLORECTAL CANCER SCREENING RATES OF HAITIAN IMMIGRANTS AND OTHER US BLACKS: A CALL TO ACTION

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Introduction: Colorectal cancer is the third most diagnosed cancer and cause of cancer deaths in the U.S. In Miami, Florida, women in the Haitian community shoulder a disproportionate burden of colorectal cancer morbidity and mortality. Lack of screening practices may account for this disparity, though previous research has not explored this hypothesis fully. To fill this gap, we examined colorectal cancer screening behaviors of Haitian immigrants relative to the more general Black population in Miami-Dade County.

Methods: Community health workers recruited women 18 and over from multiple locations in Little Haiti, the largest enclave of Haitian settlement in the Miami metropolitan area. Using a 25-question Rapid Assessment Survey women were asked about their breast, cervical, and colorectal screening knowledge and screening practices. For the purpose of this study, we only report colorectal cancer screening results.

Results: Haitian women in Little Haiti are less likely to report consistent screening practices for colorectal cancer as compared to other Black women. Only 1% of age-eligible Haitian women reported having a colonoscopy in the past ten years compared to 53.5% of Blacks in Miami-Dade County. Haitian women also reported less access to healthcare, lack of health insurance and inability to seek regular preventive care, compared to other racial/ethnic groups in Miami.

Conclusion: Study findings illustrate that Haitian immigrants are screened in less frequent intervals than the more general Black population in Miami-Dade County. Future research should further investigate the potential differences in screening behaviors between Blacks of diverse backgrounds. The traditional practice of clustering all persons together based on race without acknowledging ancestral distinction may conceal important variations in screening and disease outcomes.

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A-034l

AGE DIFFERENCES IN CANCER SURVIVORS USE OF AND TRUST IN INFORMATION RESOURCES

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Understanding cancer survivors' information seeking behavior is critical to supporting the patient information seeking experience. We examined differences by age in health information seeking and trust in information sources among cancer survivors. Nationally representative data from the Health Information National Trends Survey (HINTS 2008) were analyzed. Our analyses were restricted to cancer survivors aged 18 and older (n=1001). All data were weighted to be representative of the adult US population. Among cancer survivors, 76.3% reported that they had looked for health information. Health information seeking was most frequent among those aged 50-64 (89.2%) and least frequent among those 75 or older (61.4%). Among respondents who sought health information, the most frequently reported source was the Internet (46.7%). The percentage of respondents who used the Internet declined with age; 62.3% of respondents aged 18-24 reported use of the Internet compared to 14.7% of those aged 75 and older. Among respondents aged 75 and older who sought health information, the most frequently used source was healthcare providers (34.5%). Trust in healthcare providers for information was high: 71.5% of respondents indicated a lot of trust. Trust in the Internet for health information differed with age; 60.3% of respondents age 18-24 indicated at least some trust compared to 35.2% of those aged 75 or older. Access to the Internet declined with age; 84.7% of respondents aged 18-34 reported access to the Internet compared to 21.6% of those aged 75 or older. Among adults age 75 and older with Internet access, frequency of on-line activities such as purchasing medication (19.2%) and communicating with healthcare providers (12.4%) was similar to other age groups. Despite increasing options and availability of health information, information seeking and use of emerging technologies among cancer survivors declines with age.

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A-034m

FATIGUE EXPERIENCES AND ASSESSMENT AMONG HISPANIC CANCER PATIENTS

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Fatigue is common in cancer patients. The primary method of fatigue assessment is through self-report, largely due to the subjective nature of fatigue (Stone et al., 1998). There are several questionnaires to measure fatigue, including the Multidimensional Fatigue Symptom Inventory—Short Form (MFSI-SF Stein et al.,1998; 2004). The MFSI-SF assesses various types of fatigue (e.g., emotional fatigue, mental fatigue, physical fatigue, general fatigue, & vigor). Although the MFSI-SF is available in Spanish, it remains to be determined how well the English or Spanish version of the MFSI-SF captures the subjective experience of fatigue in Hispanic cancer patients. This study examines fatigue complaints in a sample of Hispanic cancer patients in California's Imperial Valley. Seven female and nine male Hispanic cancer patients participated in one of 4 focus groups (two in Spanish, two in English). Participants were asked to discuss their cancer-related fatigue, including what words can be used to describe their fatigue and how their cancer-related fatigue compares with other fatigue they have experienced; participants also completed and gave their feedback about the MFSI-SF. One theme that arose from the 2 groups with female participants was the necessity to minimize fatigue's impairment in their daily lives. A theme among male participants' comments was their association of fatigue with pain/weakness. A common theme for both groups was the contributions that financial stress and inefficient medical care make toward participants' distressing cancer-experience. Regarding the MFSI-SF, some participants may have underreported their fatigue symptoms because they attributed these symptoms to conditions other than cancer (e.g., age, arthritis), despite no instructions given to report only cancer-related symptoms. Additionally, some words used in the MFSI-SF's Spanish translation were confusing to participants. Implications, limitations, and future directions will be discussed.

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A-034n

FACTORS ASSOCIATED WITH ILLNESS-RELATED BEHAVIORS IN FEMALE PATIENTS WITH ADVANCED STAGE CANCER

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The National Cancer Institute recommends numerous behaviors for coping with an advanced cancer diagnosis (NCI, 2005), yet little is known about whether or not patients complete these behaviors or what factors are associated with completion. Females with stage III (n=66) or IV (n=39) breast (n=44), gynecological (n=38), or lung (n=23) cancer reported their completion of nine NCI recommended behaviors, including: 1) participation in cancer specific activities (e.g., survivorship organizations), 2) preparation for medical decision making (e.g., completing an advance directive), and 3) end-of-life planning (e.g., obtaining hospice information). Participants also reported their illness perceptions, and demographic and illness information. Additional information was obtained from medical record review. Participants were 24 to 83 years old (M=58.3, SD=11.1) and had been diagnosed for 1 to 158 months (M=16.1, SD=25.6). Behavior completion was more common among participants who were Caucasian (t(97)=2.00, p=.048), older (r=.215, p=.032), more educated (r=.270, p=.007), and wealthier (r=.242, p=.021). Patients who perceived their illness as more chronic/terminal (r=.302, p=.003), more severe (r=.243, p=.015), and felt that they had a better understanding of their cancer (r=.257, p=.010) were more likely to complete the coping behaviors. Although patients experiencing a recurrence were more likely to have completed behaviors (t(97)=2.077, p=.040), behavior completion was generally not associated with medical reports of disease status (e.g., cancer stage, presence of metastases, diagnosis duration, performance status, serum albumin levels; ps>.20). In summary, there is variability in the frequency with which female patients with advanced stage cancer perform behaviors that could help them cope with their illness. Personal characteristics about the patient as well as their cognitive perceptions of the illness are associated with behavior completion while medical indicators of disease status are not.

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A-034o

PRE-BIOPSY PSYCHOLOGICAL FACTORS PREDICT PATIENT BIOPSY EXPERIENCE

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Purpose: Breast biopsy has been related to anticipatory emotional distress, and anticipatory distress has been associated with poor biopsy-related outcomes (e.g., pain). The present study was designed to investigate: a) whether anticipatory distress before an image guided breast biopsy would predict biopsy-related outcomes (pain, physical discomfort, anxiety during the biopsy); and b) whether type of distress (i.e., general anxiety, worry about the procedure, worry about biopsy results) would differentially predict biopsy-related outcomes.

Methods: 50 image guided breast biopsy patients (mean age= 44.4 years) were administered questionnaires pre- and post-biopsy. Pre-biopsy, patients completed the Profile of Mood States-Tension/Anxiety (general anxiety) subscale and two Visual Analog Scale items (worry about the biopsy procedure, worry about the biopsy results). Post-biopsy, patients completed Visual Analog Scale measures of pain, physical discomfort, and anxiety during the procedure.

Results: 1) Pre-biopsy worry about the procedure significantly predicted pain (r=0.38, p=0.006), physical discomfort (r=0.31, p=0.026), and anxiety during breast biopsy (r=0.36, p=0.011); 2) General anxiety significantly predicted pain (r=0.36, p=0.009) and anxiety (r=0.43, p=0.001) during breast biopsy; and 3) Pre-biopsy worry about what the biopsy would find significantly predicted anxiety during breast biopsy (r=0.42, p=0.002).

Conclusions: Worry about the procedure was the only variable to successfully predict all three biopsy-related outcomes (pain, physical discomfort, and anxiety). From a clinical perspective, this item could be used as a brief screening tool in breast radiology clinics to identify patients who might be at risk for poorer biopsy experiences, and who might benefit from brief interventions to reduce pre-biopsy worry.

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A-050a

TESTING THE FEASIBILITY AND EFFICACY OF THE WORKSITE HEART HEALTH IMPROVEMENT PROJECT (WHHIP)

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Background: Worksite health promotion is an effective way to reach low-income minorities and improve their access to health resources.

Purpose: We tested the feasibility and explored the efficacy of our Worksite Heart Health Improvement Project (WHHIP) when implemented in long-term care (LTC) facilities, with minority female nursing assistants (NAs). We hypothesized that NAs who participated in the WHHIP would demonstrate stronger beliefs in exercise and heart healthy diets, increase time spent in exercise, improve adherence to heart healthy diets, improve health-related outcomes and improve work-related outcomes at each follow-up, compared to those who were exposed to education only.

Design: This was a quasi-experimental study guided by the social ecological model and the theory of self-efficacy. The three-month WHHIP intervention included three components: 1) environmental and policy assessment; 2) diet and exercise education; and 3) ongoing motivation. The control site received education only. Measures were collected at baseline, three and six months.

Sample: Two LTC sites were included and 39 female NAs participated. The mean age of participants was 41.75 (SD 13.01) with the majority being non-Latino (n 14, 77.8%) and African-American (n 31, 93.9%). Most participants (n 32, 84.2%) had at least three cardiovascular disease risk factors.

Results: Subject participation averaged 47% and 58% in all exercise and diet related activities, respectively. Generalized estimating equations (GEE) showed a significant positive treatment effect for depressive symptoms (p.012), systolic blood pressure (p.028), total cholesterol (p.002), triglycerides (p.011) and workability (p.049) overtime. Positive trends were also noted for physical activity and diastolic blood pressure.

Conclusions: Overall, the intervention was feasible and provided preliminary evidence that WHIPP improved heart healthy behaviors, health outcomes and workability among NAs in LTC settings.

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A-050b

PERCEIVED DISCRIMINATION AND AMBULATORY BLOOD PRESSURE: THE ROLES OF RACE, SEX AND GENOTYPE

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Objective: This research investigated the effects of perceived discrimination (PD) on ambulatory blood pressure among Chinese, Indians, and Malays in Singapore.

Method: 325 Singaporeans (147 Chinese, 88 Indian, 90 Malay; 177 females, mean age 48.2 yrs) underwent 24 hr ambulatory monitoring with blood pressure and heart rate measured every 30 min during waking hours. At each measurement participants were to complete a questionnaire mounted on a palm-top computer. Participants were also genotyped for the tri-allelic 5HTTLPR. Due to relative rarity individuals with two copies of the high active allele (HH) were not included in analyses. PD was measured using the Perceived Discrimination Scale.

Results: After controlling for known situational influences on ambulatory BP, an interaction was obtained between race and PD for SBP and DBP ($p < .01$ for both) such that higher PD was associated with higher BP for Indians but this was not true for Chinese and Malays. In addition, a significant genotype by sex by PD interaction ($p < .05$) was obtained for SBP such that for females genotype interacted with PD whereas this was not true for males. For females with one copy each of the low and high activity alleles (LH) higher PD was associated with higher BP whereas the opposite was the case for those with two copies of the low active allele (LL).

Conclusions: These data point to the importance of perceived discrimination in blood pressure responses during everyday activities. When controlled for situational factors known to affect blood pressure both SBP and DBP showed a significant interaction between race and PD whereby higher perceived discrimination was associated with higher BP but only for Indians. This finding is consistent with the higher rates of CHD for Indians compared with other racial groups. The interaction of sex, genotype and perceived discrimination for SBP provides evidence that responses to PD are moderated by 5HTTLPR genotype.

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A-050c

ROLE OF GENDER AND DEPRESSIVE SYMPTOMS ON PHYSICAL COMPONENT QUALITY OF LIFE TRAJECTORY IN PATIENTS WITH CORONARY ARTERY DISEASE

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Quality of Life (QOL) in Coronary Artery Disease (CAD) is dynamic and multidimensional. Poor physical component QOL is associated with increased morbidity and mortality, and influenced by numerous modifiable and non-modifiable factors. The objective of this study was to examine whether gender and depressive symptoms are associated with changes in the physical component QOL across two years following a coronary event. Data was collected in Medellín, Colombia on a sample of 100 CAD patients admitted after a cardiac event. Participants' age ranged from 43 to 85 years, 72% were male, and 66% had a known history of CAD. Participants completed the SF-36 to measure QOL and the Patient Health Questionnaire - 9 (PHQ-9) to measure depressive symptoms. They were followed every six months for two years. Hierarchical linear models (HLM) were used to analyze the data because this technique allows for more precise charcterization of QOL trajectory over time. Results suggest that SF-36 physical scores initially improved and then remained stable over time with a slight decrease. However, the trajectory varied by gender and PHQ-9 scores. Men had higher physical QOL scores at baseline, scoring 4.84 points higher than women, and maintined higher scores over time. In addition, higher PHQ-9 scores were associated with lower SF-36 physical component sub-scale scores at baseline. Specifically, for each additional point on the PHQ-9, the SF-36 physical component sub-scale score was 0.36 points less. Finally, results indicate that depressive symptoms are associated with QOL over time: a one-point increase in PHQ-9 scores was linked to 0.004-points decrease per month in the SF-36 score. In sum, as females and patients experiencing depressive symptoms seem to be at risk for lower physical component QOL. Therefore, rehabilitation professionals should tailor their programs to the patient's gender and address mental health issues in order to improve QOL.

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A-060a

EFFECT OF YOGA PRACTICE ON RANGE OF MOTION OF TYPE 2 DIABETES MELLITUS PATIENTS

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Research has found limited joint mobility in diabetes patients, even without the presence of neuropathy. Impaired range of motion may modify normal gait patterns by increasing plantar pressures, which may contribute to ulceration. In addition, adequate range of motion is important to maintain functionality and quality of life. Traditional exercise has been shown to improve range of motion in this population; however, no known studies have been conducted to investigate the effect of alternative therapies, such as yoga, on range of motion of diabetes patients.

Purpose: To investigate the effect of yoga practice on range of motion of Type 2 diabetes mellitus (T2DM) patients. Methods: Ten T2DM patients underwent a systematic 6-week yoga program, 3 days/week, with a registered yoga teacher. Flexibility of the lower back and hamstrings was measured with a sit-n-reach box. Active range of motion (AROM) at the hip was assessed with a double-armed universal goniometer, while AROM of the trunk was assessed with two inclinometers and a double-armed universal goniometer. All data were obtained at baseline and post-intervention. A one-way within-subjects ANOVA design, with Bonferroni adjusted post hoc analyses, was used to assess changes between pre-intervention and post-intervention AROM values. Statistical significance was set at α=.05 Results: Flexibility of the hamstrings and lower back improved following the 6-week intervention (p=0.000). Hip flexion (p=0.008), abduction (p=0.03), adduction (p=0.04), internal rotation (p=0.04), and external rotation (p=0.005) for both sides of the body significantly increased. There were also increases in AROM of the trunk including right lateral flexion (p=0.03), right rotation (p=0.000), and left rotation (p=0.003). There were no significant changes for trunk left lateral flexion (p=0.10) or lumbar extension (p=0.52). Conclusion: Yoga practice may be an alternative mode of exercise to increase range of motion of T2DM patients. Improved range of motion may contribute to the ability to perform everyday tasks independently and maintain an active lifestyle in this priority population.

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A-060b

THE INITIAL EFFECTS OF INTRINSIC RESISTANCE TRAINING ON STRENGTH DEVELOPMENT IN OLDER ADULTS WITH PREDIABETES

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Resistance training (RT) research on strength, muscular hypertrophy, and other positive biological changes for health and disease prevention indicates the degree of effort and not heavy resistance as used in the typical extrinsic weightlifting model is the major stimulus for changes. Based on these findings, intrinsic RT uses moderate resistance, focuses on correct form, controlled repetitions, properly targeting muscle groups, and a high degree of effort (RPE) at the end of a set of repetitions, with modelling, guided practice, and feedback for instructing technique. The Resist-Diabetes project involves adults, ages 50-69, BMI, 25-39, inactive, de-conditioned, fitting prediabetic criteria, with initially supervised intrinsic RT 2/week in a lab/gym, followed by transitioning to health clubs. The protocol includes 12 exercises, 1 set each, 8-10 controlled repetitions all ending in a high RPE. The first 36 participants in the initial phase completed a mean of 21.75 (+1.14) /24 workouts (91%), and collectively performed 783 workouts with no adverse events. Strength assessments used a 3 repetition maximum (3RM) for the chest press and leg press with the same controlled repetition performance as the RT. Participants increased 3 RM chest press from 67.6 lbs to 91.9 lbs (36%; p <.01) and leg press from 330.4 lbs to 374.4 lbs (13%; p <.01); changes in fasting plasma glucose (baseline mean = 102.3 mg/dl) were associated with changes in body composition assessed by DEXA; change in % body fat, r=.46, p <.01 (baseline mean = 43.4%); change in % lean body mass, r=-.44, p <.01. An intrinsic RT model appears to be safe, efficacious, and applicable to de-conditioned, at-risk adults.

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A-060c

A COGNITIVE-BEHAVIORAL GROUP INTERVENTION FOR ADHERENCE AND DEPRESSION IN ADULTS WITH TYPE 1 DIABETES: FEASIBILITY AND ACCEPTABILITY

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Background: The comorbidity of depression and diabetes is well documented; depression is more prevalent among individuals with diabetes than those without and is associated with poorer diabetes outcomes. Our aim was to examine feasibility and acceptability of a group intervention utilizing CBT-based techniques to improve treatment adherence and reduce distress/depressive symptoms (CBT-AD) in adults with type 1 diabetes (T1DM).

Methods: Ten adults with T1DM and elevated symptoms of distress were recruited for an open-phase pilot to test the feasibility of group CBT-AD anzd provided pre- and post-intervention data. Participants were evaluated using a structured clinical interview for depression (Montgomery Asberg Depression Rating Scale; MADRS), completed the Diabetes Distress Scale (DDS) and glycemic control was assessed (HbA1c). Qualitative interviews were conducted with 8 participants post-intervention. Transcripts were coded utilizing grounded theory.

Results: The CBT-AD intervention was well received by participants (50% male; 50% African-American; 37.5% Hispanic; mean age=41.5±5.9; mean BMI=28±5.4; mean A1c=8.6%±0.98%; mean MADRS=21±11.0; mean DDS=3.2±1.2). DDS scores improved for 62.5% of participants, and all but one had a reduction in MADRS. All participants provided positive feedback. Peer support was identified as key for improving insight, motivation, and behavior change. Participants reported increased agency and insight regarding their illness behavior and the impact of depression on their T1DM. Fractured diabetes care and patient burnout were also consistent themes.

Conclusions: Participants identified problems with diabetes management that were addressed by CBT-AD, which was feasible, acceptable, and demonstrated initial evidence for potential efficacy. However, recruitment was a challenge. Implications for implementation of CBT-AD in patients with type 1 diabetes are discussed.

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A-071a

RELATIONSHIPS BETWEEN RESILIENCE, GENDER, AND CHANGE IN PERCEIVED STRESS IN HIV-POSITIVE INDIVIDUALS OVER ONE YEAR

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Stress, depression, and hopelessness are associated with accelerated HIV progression, yet psychological resources such as resilience have not been widely studied. Resilience involves maintaining self esteem, self efficacy, and positive affect in the face of stress. Resilience may influence how stress is experienced, and thus, the extent to which it affects physical and mental health. Gender may influence both stress and resilience.

As part of a larger randomized trial of expressive writing, this study examined relationships between resilience, gender, and perceived stress in HIV-positive individuals, from baseline through 12-months. Resilience was measured at multiple time points using a composite of the Pearlin Mastery Scale, Rosenberg Self Esteem Scale, and the positive subscale of the Positive and Negative Affect Schedule (PANAS). Perceived stress was measured repeatedly by the Perceived Stress Scale (PSS).

This study found 10.6% higher mean perceived stress in men, and 3.7% higher mean resilience in women. One-way ANOVA indicated higher mean perceived stress in men F (1,252) = 5.51, p = 0.02, and a trend toward higher mean resilience in women F (1,252) = 3.55, p = 0.06. Linear regression analyses indicated that resilience is a mediator of change in perceived stress, as demonstrated by a reduction in the direct effect of perceived stress at baseline on perceived stress at 12 months while controlling for resilience (B = 0.410, z(171) = 5.932 , p < 0.001). This mediation effect was significant in both men and women, indicating that gender does not moderate this effect.

These findings suggest that a mechanism exists by which resilience protects against deleterious changes in perceived stress over time, and that this mechanism functions similarly in women and men.

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A-071b

FAMILY COHESION MEDIATES THE RELATIONSHIP BETWEEN ACCULTURATION AND DEPRESSIVE SYMPTOMS IN HIV+ LATINOS ON THE U.S-MEXICO BORDER

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Epidemiological and clinical studies evidence disproportionate rates of depression in people living with HIV/AIDS (PLWHA). While Latinos are not at greater risk for psychiatric disorders than other ethnic groups, more acculturated Latinos (versus less acculturated) report greater psychological distress. One mechanism that may protect less acculturated Latinos against psychological distress is family cohesion. Characteristic of collectivist cultures, family cohesion involves close family ties and integration of the family into one's self-concept, potentially providing social support against HIV-related stressors and mental illness. We hypothesized that the relationship between acculturation and depressive symptomatology would be mediated by family cohesion. We administered the Beck Depression Inventory 1A (BDI), the National Latino and Asian-American Study survey of family cohesion (NLAAS-FC) and a general demographic survey to 244 HIV+ Latinos of Mexican descent (145 Spanish-speaking, 99 English-speaking) at a local outpatient clinic in El Paso, Texas. Language preference (English vs. Spanish) was used as a proxy measure for acculturation. Average depression scores were mildly elevated in the sample (M = 12.2, SD = 9.8), and were positively associated with self-report measures of medication non-adherence (r=.17-27, all ps<.05). We used a resampling bootstrapping strategy to assess mediation. Family cohesion fully mediated the relationship between acculturation and depressive symptomatology (indirect effect-ab paths = 2.03, 95% CI [.87, 3.6], direct effect- c prime= 1.9, p = .12). Our data suggest that higher acculturated HIV+ Latinos may be more vulnerable to psychological distress due to a lessening of ties to one's family and culture. It has been demonstrated elsewhere that family cohesion promotes social support. Future work is needed on how changes in family dynamics occur with acculturation, and the impact of these changes on mental and physical health.

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A-071c

DETERMINANTS OF CONDOM USE

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Sexually transmitted infections (STIs) are a public health priority. The use of condoms is one of the most effective ways to prevent the spread of STIs, yet this simple cautionary measure is underutilized. Determining what factors influence condom use is critical to designing effective interventions to reduce risky sexual behaviors. The present study employed logistic regression to evaluate the role of multiple factors, including gender, age, relationship status, and condom attitudes on condom use during participants most recent act of sexual intercourse. All questionnaires were administered via an online survey management site after informed consent was conducted. Participants answered questions from their personal computer and had no interaction with the researchers. All participants were recruited via Internet posting on sites like Craig's List and Facebook. There were 772 participants included in the final analysis (292 men, 470 women, Mage = 25.56 years, age range:18-65). Sixty-nine participants self-identified as primarily gay or lesbian, and 693 identified as primarily heterosexual. Results showed that the intial model including gender, relationship status, age, number of sexual partners, and five different aspects of condom attitudes (reliability, pleasure, identity stigma, embarrassment about negotiations and use, and embarrassment about purchase) successfully predicted condom use at previous sexual intercourse (Cox & Snell R2=0.118; Nagelkerke R2=0.162). The strongest predictors of condom use were gender, relationship status, attitudes about the pleasure of condom use, and embarrassment about the use and purchase of condoms. Women were less likely than men to have used a condom during their last act of sexual intercourse and those that were currently in a monogamous relationship were less likely than single participants to use a condom. Additional analyses were conducted examining condom use among single participants showed the same predictors. These findings indicate that condom interventions may be more effective if they target women and focus on reducing the embarrassment surrounding condom use.

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A-082a

RELATIONSHIPS BETWEEN PSYCHOLOGICAL IMPACTS, INFLAMMATION AND NUTRITIONAL PROFILES IN HEMODIALYSIS PATIENTS WITH CHRONIC RENAL FAILURE

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Objective: Hemodialysis has an adverse impact on the emotional and nutritional status, and immunologic function of patients undergoing the procedure. We herein analyzed the biochemical markers of inflammation and nutrition among hemodialysis patients, and further elucidated the relationships between these markers and emotional symptoms.

Method: This cross-sectional study enrolled 195 hemodialysis patients with a mean age of 58.5 years. Emotional disturbances were assessed using the Mini International Neuropsychiatric Interview, Hospital Anxiety and Depression Scale, Chalder Fatigue Scale, and Short-form Health-related Quality of Life. Venus blood was collected for laboratory assessment of serum hemoglobin, albumin, ferritin, C-reactive protein, interleukin (IL) 1β, IL-6 and tumor necrosis factor α.

Result: Of the 195 subjects (92 men and 103 women), 47 (24.1%) fulfilled the criteria for a major depressive disorder (MDD). The IL-6 level in patients with MDD was significantly higher than in patients without MDD. Significant mutual correlations existed between IL-6, fatigue, and quality of life in terms of both physical and mental components. Albumin levels showed significant correlation with IL-6 and depression scores.

Conclusion: These results demonstrate that serum levels of albumin and IL-6 might be laboratory predictors that are collaboratively associated with emotional symptoms in hemodialysis patients. A prospective study will prove helpful in determining the causal relationships related to the complexity of psycho-neuro-immune mechanisms among these patients.

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A-082b

NEGATIVE EMOTIONS LINKED TO UNHEALTHY EATING BEHAVIORS AMONG COLLEGE STUDENTS

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College students face numerous stressors which put them at-risk for behavioral health issues, such as maladaptive eating. Disordered eating can be precipitated by negative emotional states or difficulty tolerating negative emotions. Previous research has linked emotional issues such as depressive symptoms, anxiety sensitivity, and low emotional distress tolerance with disordered eating among adolescents and clinical samples of young adults. However, little is known about the relationship between depressive symptoms, anxiety sensitivity, and distress tolerance with maladaptive eating among non-clinical and diverse samples of college students. College participants (n=180; 59% females, mean age=21; 41% Caucasian; 28% Latino) were administered the Eating Disorders Examination Questionnaire (EDE-Q), Center for Epidemiologic Studies Depression Scale-Brief (CES-D), Anxiety Sensitivity Index (ASI), and the Distress Tolerance Scale (DTS). Similar to research with adolescent and clinical young adult populations, depressive symptoms (M =3.13, SD=2.08) and anxiety sensitivity (M=19.55, SD=9.48) were positively associated with maladaptive eating patterns (r=.24 and r=.37 respectively, p < .01). In addition, lower emotional distress tolerance (M=54.24, SD=10.33) was associated with disordered eating (MLog-Transformed= .34, SD= .21; r= -.31, p < .01). A hierarchal regression analysis was conducted in order to evaluate how well the emotion measures predicted unhealthy eating. A two-factor model was significant, F (2, 164) = 16.06, p < .01, R2= .16. The strongest predictor was anxiety sensitivity (b= .01, t= 4.60, p < .01) followed by depressive symptoms (b= .02, t= 2.30, p < .05).Distress tolerance was not a significant predictor, p > .05.Cognitive behavioral strategies to improve anxiety sensitivity and depressive symptoms could prove helpful in mitigating unhealthy eating behaviors and attitudes. Similarly, educational components on emotions, eating, and body image in stress management outreach programs for college students are recommended.

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A-082c

PSYCHOPHARMACOLOGY VS.PSYCHOLOGICAL TREATMENT FOR BEHAVIORAL ISSUES: CONSUMER PREFERENCE BASED UPON PROVIDER RECCOMENDATION

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Objectives: The purpose of this study was to identify the effects of media advertising on consumer treatment preference for psychological and pharmacological interventions.

Methods: Randomly assigned video vignettes portraying either medical or mental health spokesperson were presented to 124 participants. Following observation of the vignette (containing information and treatments for a fictitious disorder), participants indicated their treatment preference.

Results: Of the 65 participants who viewed the psychological treatment provider recommendations, 59 endorsed psychological treatment, while 22 of 59 participants who viewed the medical health provider vignette preferred the medical intervention. Open-ended questions indicated participants were most likely to identify concerns about side effects and recommendation of the provider to influence their decision making. A significant difference was observed in the number of participants who selected psychological treatments vs. medical treatments based upon observed vignette, indicating the influence of a short video vignette and its capacity to influence health care decision making by participants.

Conclusions: Despite indicating a preference for medical treatment providers, participants were more likely to endorse psychological treatment regardless of video observed. The authors discuss implications for policy, changes to direct to consumer advertising, and integrated care models.

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A-082d

A SOCIAL NETWORK/QUALITATIVE APPROACH TO ENHANCE DISSEMINATION AND IMPLEMENTATION OF PREVENTION PROGRAMS IN COMMUNITY SETTINGS

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There is empirical evidence supporting the efficacy of preventive interventions in randomized control trial studies. However, challenges associated with the transportability of programs into "real world" settings exist. For these reasons, it is important to identify and pre-empt factors that can threaten prevention efforts in community settings. To this end, we propose and demonstrate with data a systematic approach that uses social network (SN) and qualitative methods. Data corresponding to 93 school psychologists and 42 social workers employed by 1 of 4 school districts in a southwest US city were used. Participants were mostly Caucasian (83.3%) and female (80.7%) with a mean age of 41 years old. SN data along with feasibility and sustainability data corresponding to school-based implementation of mental health prevention were collected. Findings showed that leads/administrators nominated 25 opinion leaders whereas the SN approach suggested 43 (with some overlap; ~20%). Opinion leaders were invited to participate in focus groups and those selected for participation had significantly greater degree (6 vs. 2; t=5.74, p < .01), betweenness [38 vs. 15; t=3.12, p < .01), and influence attribute scores (61 vs. 28; t= 4.09, p < .01) than their non-focus group counterparts (non-opinion leaders, n = 108). Data from opinion leaders who participated in 1 of 9 focus groups yielded a grounded-theory, 3-facet model of personal and organizational factors that limit and enable prevention efforts (Fit, Minimization of Concerns, and Feasibility, and Sustainability). SN data also revealed a number of cohesive subgroups nested within each school district (2-3 per district) that may be instrumental for dissemination (fg modularity .21 to .24). The approach appears to be promising for assisting the transportability of interventions into the "real world".

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A-082e

SOCIAL NETWORKING AND EATING DISORDERS: AN INTERNET SURVEY

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The purpose of this study was to identify a relationship between use of online social networking sites and eating disorders. The rise in popularity of websites such as Facebook has implications for mental health, and use of these sites has been related to increased loneliness and depression. The salience of photographs and user images on social networking sites likely has an impact on body image and, subsequently, eating disordered behaviors. The authors propose an explanatory theoretical model linking social networking, body dissatisfaction, and eating disorders that may perpetuate or maintain eating disordered behaviors and cognitions. Participants were 152 adult women who completed an online survey including measures of eating disorder symptomatology, self-esteem, fear of negative evaluation, and Facebook use. Time spent on Facebook was positively correlated with eating disorder pathology, even after controlling for body mass index, r = .23, p = .006. Multiple regression analysis indicated time spent on Facebook accounted for 5.2% of the variability in eating disorder symptomatology. After including fear of negative evaluation, self-esteem, and BMI, the model significantly improved, such that all four predictors accounted for 48.3% of the variability in eating disorder symptomatology, F(4, 147) = 34.40, p < .001. This study provides evidence to support the idea that online social comparison to peers may serve as a predictor for eating disorders.

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A-082f

KNOWLEDGE, EXPERIENCE, AND OPINIONS OF CHINESE CLINICIANS ABOUT EATING DISORDERS

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Eating disorders (EDs) are becoming more common in non-Western cultures, including China. Because these disorders require early detection and intervention, the study investigated Chinese clinicians' knowledge, experience, and opinions about EDs. A survey was developed and mailed to 437 clinicians in different geographic regions of mainland China. Data from 434 completed surveys were analyzed. Respondents demonstrated limited knowledge of EDs on the developed survey, especially knowledge of physical complications. Most respondents reported having no experience in diagnosing or treating EDs although the majority indicated seeing an increase in ED-related concerns and behaviors in their clinical practice. Respondents also reported that they did not "always" screen for EDs in suspected cases and that they felt moderately confident in diagnosing and managing EDs. Important risk factors for EDs identified by respondents were emotional problems and variables related to acculturation and sociocultural transition. ED care in China was characterized as inadequate; rural clinicians in China were considered unlikely to know about EDs. In general, respondents held the same views on ED care as Western clinicians and perceived typical features of EDs in Chinese ED patients. Among clinicians surveyed, mental health clinicians were more knowledgeable and experienced in EDs than non-psychiatric physicians. In conclusion, findings from the study indicate that Chinese clinicians may have limited knowledge and experience in EDs. ED-related issues are perceived to be increasing while ED care is considered inadequate in China. These results suggest a need for further education and training of Chinese clinicians on EDs. Furthermore, the clinical profile of Chinese ED patients perceived by Chinese clinicians is similar to that of Western ED patients, which does not support different psychopathology between the two populations. Further research among clinicians across different cultures may further clarify cultural universals and particulars in EDs.

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A-087a

VALIDATION OF AN ONLINE QUESTIONNAIRE MEASURE OF THE RELATIVE REINFORCING VALUE OF FOOD

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The relative reinforcing value of food (RRV-F) is influenced by food deprivation, stress, dietary restraint, and several other eating- and weight-related variables. Although laboratory methods and paper-and-pencil questionnaires to assess the RRV-F have been developed and validated, this is the first study to validate an online questionnaire measure of the RRV-F. Participants were 296 undergraduate college students who completed an online survey assessing demographic variables, preference for high-sugar/high-fat food (Hershey Milk Chocolate Kisses) and low-sugar/high-fat food (Kraft Cheddar Cheese Cubes), the RRV-F, and other eating- and weight-related constructs. To assess the RRV-F, participants completed an 11-item chocolate versus cheese questionnaire (hypothetical 1 Kraft Cheddar Cheese Cube after 5 button presses vs. 1 piece of Hershey Milk Chocolate after [5 to 2275, progressive ratio] button presses). This sample was 72% female (N = 214), 68% Caucasian, and ranged in age from 18 to 68, with most participants falling between the ages of 18 to 23. The sample had a mean BMI of 25.69 (SD = 6.13). A subsample (n = 21) also completed a laboratory session with actual progressive ratio choices of chocolate vs. cheese (5 to 2275 button presses). The online RRV instrument showed strong convergent validity with laboratory food choice behavior, BMI, and food craving. Discriminant validity was supported by a lack of association between data from the online measure of the RRV-F and unrelated constructs (age, gender, height). Results supporting the validity of this instrument suggest that online methodology is appropriate for assessing the RRV-F in a manner that is cost-effective, time-efficient, affords greater anonymity, and enables recruitment from larger samples over a broader geographic region.

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A-092a

DIETARY RESTRAINT MODERATES THE EFFECT OF PRESCRIPTIVE/PROSCRIPTIVE MESSAGE FRAMING ON HEALTHY FOOD PURCHASE DECISIONS IN A VIRTUAL GROCERY STORE

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Many studies have examined the relative effectiveness of messages that frame potential outcomes in terms of gains versus losses. However, the outcome is only one part of a persuasive message; an often overlooked component describing the advocated behavior is typically included as well. This recommendation can be framed in a way that emphasizes what one should do (prescriptive) or what one should not do (proscriptive). The objectives of this experiment were to (1) examine the effect of prescriptive/proscriptive framing on food purchase decisions and (2) examine whether the relationship is moderated by dietary restraint - the tendency to restrict caloric intake in an attempt to lose or maintain body weight. One-hundred subjects were randomly exposed to a prescriptive or proscriptive dietary message. They then made purchase decisions in an online virtual grocery store, which contained over 100 products across 24 food categories. After interacting with the virtual world, subjects received a score representing the average healthfulness of all products purchased. Regression analyses revealed that the main effects of dietary restraint and message condition were not predictive of healthy shopping scores. However, the interaction between these two variables was significant, B = .199, SE = .098, p = .046. Simple slopes analyses revealed that restrained eaters (compared to unrestrained eaters) made healthier purchases following exposure to the prescriptive message, B = .309, SE = .134, p = .024. In contrast, restrained and unrestrained eaters did not differ in terms of healthy purchases following exposure to the proscriptive message, B = -.089, SE = .148, p = .550. These results suggest that, for restrained eaters, the persuasiveness of dietary communications may be optimized by framing advocated behaviors in terms of what one should (versus should not) do. Future research should investigate the mechanisms through which prescriptive/proscriptive message framing influences healthy decision-making.

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A-092b

THE IMPACT OF MESSAGE FRAMING AND POST-INTERVENTION IMPLICIT AFFECT ON FRUIT AND VEGETABLE CONSUMPTION

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The effectiveness of persuasive health communications can be influenced by the way in which the message content is framed. Because healthy eating behaviors typically involve little to no risk, Prospect Theory predicts that advantageous dietary decisions should be best promoted by messages that emphasize potential gains rather than losses. This has been demonstrated in several studies but loss-frame advantages have also been documented. And muddying the waters further, other studies have reported no differences in persuasiveness. The primary objective of this experiment was to contribute to the ongoing dialogue by comparing the relative effectiveness of framed messages in terms of their ability to encourage subsequent consumption of fruits and vegetables. A second objective was to explore whether post-message implicit affect would be associated with message persuasiveness. Subjects (N=102) were randomly exposed to either a loss-framed or gain-framed appeal before responding to a measure of implicit negative and positive affectivity. Subjects returned to a website each evening (for a total of seven follow-up sessions) to report their daily vegetable and fruit consumption. In contrast to Prospect Theory's prediction, a Poisson regression revealed that the loss-framed message was more effective than the gain-framed message in terms of promoting vegetable consumption, Exp(B) = 1.59, p = .046, 95% CI [1.01, 2.51]. Implicit negative affect did not predict vegetable consumption, however, implicit positive affect was found to be positively associated, Exp(B) = 2.73, p = .019, 95% CI [1.18, 6.29]. No effects were observed when predicting fruit consumption. The message design recommendations set forth by Prospect Theory should be re-examined considering that the results of this experiment provide evidence for a loss-frame rather than gain-frame advantage. The findings also suggest that post-intervention implicit positive affectivity may be a promising means of predicting message persuasiveness at the time of exposure.

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A-092c

INVOLVEMENT MEDIATES THE JOINT EFFECT OF MESSAGE FRAMING AND CONSIDERATION OF FUTURE CONSEQUENCES ON DIETARY INTENTIONS

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Although prior studies have compared the effectiveness of dietary appeals that frame potential outcomes in terms of losses versus gains, the findings are largely inconsistent. In a commentary on a recent message framing meta-analysis, Latimer, Salovey, and Rothman (2007) acknowledged that differential effects may be a result of how the appeals are construed by the message recipient and that moderators other than behavior type (i.e., prevention/detection) should therefore be explored. With this in mind, the primary goal of this experiment was to examine whether persuasiveness might be jointly predicted by message framing and individual differences in the consideration of future consequences (CFC). A second objective was to test whether message involvement mediated the relationship. Subjects (N=290) responded to a measure of CFC before being randomly exposed to a loss-framed or gain-framed dietary message. They then reported involvement and dietary behavioral intentions. As predicted, regression analysis revealed a significant interaction between message frame and CFC, B = -.236, SE = .112, p = .036. Post-hoc simple slopes analyses demonstrated that high CFC subjects (compared to low CFC subjects) reported stronger intentions following exposure to the loss-framed message, B = .551, SE = .161, p < .001. In contrast, the intentions of high CFC and low CFC subjects did not differ following exposure to the gain-framed message, B = .079, SE = .162, p = .626. Preacher and Hayes' (2004, 2008) bootstrapping method for indirect effects revealed that message involvement did in fact mediate the relationship between CFC and behavioral intentions (point estimate = 0.2345; bias-corrected and accelerated 95% confidence interval = 0.0809 to 0.4497). In addition to providing insight regarding the underlying mechanisms of the framing effect, the results of this experiment suggest that matching message content to key features of the recipient may be a promising approach to disentangling the inconsistent effects reported in the framing literature.

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A-117a

EATING AS EMOTION REGULATION IS ASSOCIATED WITH BODY COMPOSITION

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Purpose

The rates of obesity in the US are high and increasing and weight loss programs have limited success. What makes people gain weight and prevents them from changing their diets and losing weight when they need to? Research suggests that people's emotions, and in particular emotion regulation, may affect eating habits. Namely, eating may be used as an emotion regulation strategy. However, to date no reliable measure existed to specifically assess eating as emotion regulation (EER). Here, we preset such a measure.

Methods

Forty-five committed heterosexual couples (mean age = 31.6, SD = 12.6; mean relationship duration = 6.2 years, SD = 7.1) reported on their use of eating to feel 1) more positive, 2) less negative, and 3) more calm under stress. Participants' waist circumference and percentage of body fat were measured during a laboratory session. We then assessed reliability of the new EER measure and used a cross-sectional dyadic model to test whether EER was associated with body composition measures. Lastly, we tested whether this relationship was moderated by age.

Results

EER demonstrated good internal consistency: Cronbach's α=.89 for women and α=.80 for men.

The interaction between EER, gender, and age was significant for waist circumference F(1, 31) = 8.64, p = .006 and marginally significant for percentage body fat, F(1, 31) = 3.48, p = .072. Our results showed low EER to be associated with lower percent body fat and smaller waist circumference among older women.

Conclusion

The new EER measure is reliable and can be used to assess EER in populations with eating disorders, overweight, and obesity. Among older women, low EER serves a protective function against increases in percent body fat and waist circumference. It is important to carefully assess EER and offer interventions that help develop more adaptive emotion regulation strategies to replace unhealthy eating habits used to regulate emotion.

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A-117b

OUTCOMES OF INCREASING PHYSICAL ACTIVITY IN OBESE POPULATIONS: WEIGHT LOSS OR COMPENSATORY SEDENTARY BEHAVIOR?

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The role of physical activity in the management of obesity represents an area of debate. Concerns center on (a) whether obese individuals can achieve the amounts of moderate intensity activity necessary to affect weight loss and (b) whether high intensity activity might result in an increase in compensatory sedentary behavior. This study examined these issues in the context of a weight-loss program for obese individuals in rural communities. Participants were 181 adults with a mean ± SD age of 53.8 ± 10.5 years and body mass index of 35.6 ± 3.3 kg/m2. Body weights were measured with a digital scale at baseline and after 6 months of weight management training. The program focused on reducing caloric intake and increasing physical activity. Physical activity was assessed over two 7-day periods during Months 0 and 6 with an electronic device that calculates energy expenditure using triaxial accelerometry, galvanic skin response, skin temperature, and heat flux (SenseWear WMS Armband). Participants lost an average of 10.0% body weight over the course of the 6-month period (SD ± 6.39). They increased physical activity of moderate intensity or greater by an average of 50.8 minutes per week (SD ± 189.2). Increases in moderate intensity activity were associated with decreases in body weight, $\beta = -.266$, $t(172) = -3.85$, $p < .001$. Similarly, increasing high intensity activity was associated with weight loss, $\beta = -.198$, $t(172) = -2.91$, $p = .004$, and there was no evidence that participants compensated for engaging in high intensity activity by increasing sedentary behavior ($p = .403$). Increasing moderate and high intensity physical activity were associated with weight loss and high intensity activity did not trigger compensatory sedentary behavior, thus increasing the intensity of physical activity may have a role in weight management lifestyle interventions.

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A-117c

RACIAL DIFFERENCE IN ADHERENCE AND WEIGHT LOSS DURING STANDARD BEHAVIORAL TREATMENT

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The obesity epidemic disproportionally affects minority groups. The effectiveness of standard behavioral treatment (SBT) strategies for members of minority groups has been debated; however, data are lacking. We analyzed data from the 298 non-Hispanic white or black, female participants of two clinical trials (PREFER and SMART). Both trials used SBT including group treatment sessions and self-monitoring through at least 12 mos and semi-annual measurement assessments through at least 18 mos. Most participants were white (78%). Marital status, insurance coverage, income, employment status, years of education and baseline body mass index did not differ by race. Black participants were slightly younger (43 vs. 46 years, p=.02). Weight changes (% from baseline (0 mos)) were lower for black participants at all time points but only significant at 12 mos (6 mos: -5.9 vs -7.6, p=.07; 12 mos: -5.1 vs -7.7, p=.01; 18 mos: -2.9 vs -4.9, p=.06). Adherence to self-monitoring (% of time) and attendance at group sessions (% of sessions) did not differ by race from 0 - 6 mos; however, from 6 - 12 mos black participants self-monitored less often (23 vs 33, p=.04) and attended fewer sessions (40 vs 51, p=.03). Overall, the correlation between weight change and adherence to self-monitoring was statistically significant (p<.01) but modest (r= -.50) from 0 to 6 mos and significant but weak (r= -.18, p<.01) from 6 -12 mos. When these correlations are examined by race, results are similar from 0 - 6 mos (white: r= -.52, p<.01; black: r= -.40, p<.01); however, differences emerge from 6 - 12 mos (w: r= -.18, p=.02; b: r= -.17, p=.24). Attendance is highly correlated with self-monitoring adherence; thus, correlations with weight change are similar. The weaker correlations between adherence and weight change and the reduced success with weight loss at 6 mos might suggest that traditional SBT is less effective for black participants. The disappointing early weight loss could have contributed to subsequent non-adherence and weight regain. Further research is needed to explore reasons for these observed differences.

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A-117d

ARE THE NEUROBIOLOGICAL EFFECTS OF ELEVATED BMI ADDICTION-LIKE?: IMPACT ON BEHAVIORAL INHIBITION

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Obesity is a major public health problem. Positive long-term weight control outcomes remain difficult to achieve. One recent area of interest is in the neurobiological mechanisms of obesity. Researchers have begun to examine similarities between the effects of chronic over consumption of food and substance abuse. Both involve similar patterns of over-learned behavior in response to potent rewards and reward cues that persist despite consequences (e.g. Johnson & Kenny, 2010) and there is evidence that both produce some similar neurobiological adaptations, possibly leading to prefrontal cortex dysregulation (Del Parigi, Chen, Salbe, Reiman, & Tataranni, 2003; Volkow & Wise, 2005; Wang, Volkow, Thanos, & Fowler, 2004).

The current study examined the impact of BMI and illicit drug use on the ability to inhibit prepotent behaviors. Participants (n=290) were weighed and measured, completed the Addiction Severity Index, and behavioral tasks that assess the ability to inhibit a prepotent behavior: The Stroop Test and Go/No-Go.

After controlling for age and gender, higher BMI was an independent predictor of poorer performance in both the Stroop and Go/No-Go tasks. Drug use was a predictor of poorer Stroop performance only. We conclude that elevated BMI is predictive of poorer performance on executive functioning tasks that require inhibition of a prepotent behavioral response. Elevated BMI shows similarities to the effects of substance abuse and in some cases contributes to deficits in cognitive performance above and beyond substance abuse when a history of both are present. These findings, in combination with other recent research, suggest the possibility that prepotent inhibition could be a factor in predicting treatment failure and attrition, and might need to be assessed and targeted in weight control interventions.

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A-117e

THE EFFECT OF CHANGES IN BMI AND FAT INTAKE ON LDL-CHOLESTEROL IN OBESE, MIDDLE-AGED WOMEN

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Obese individuals who lose weight commonly show improvements in their blood lipid profiles, particularly a decrease in LDL-cholesterol (LDL-C), an important risk factor for heart disease. However, it remains unclear whether such improvements are due to weight loss, to dietary changes, or both. Specifically, weight loss decreases LDL-C production by reducing the impact of visceral fat on hepatic metabolism, while a reduction in saturated fat intake decreases serum cholesterol levels. In the current study, we hypothesized that weight loss would be associated with lower LDL-C and that dietary changes (i.e., decreased saturated fat intake) would also contribute significantly to lowering LDL-C. We examined this question with a hierarchical regression with change in BMI (block one) and change in saturated fat intake (block two) as the predictor variables and change in LDL-C as the dependent variable. These changes were explored for a 6-month period of weight loss. The sample included 232 obese women from rural communities (M±SD, age = 59.8±6.3 years, BMI = 36.8±4.8 kg/m2). At baseline, height was taken with a stadiometer, and at baseline and after 6 months of lifestyle treatment, weight was measured with a balance beam scale, blood lipids were analyzed by Quest Diagnostics Laboratories, and dietary intake was assessed with the Block Food Frequency Questionnaire. All three variables decreased significantly (ps < .05) between months 0 and 6 (M±SD, BMI = -3.5±2.2 kg/m2, saturated fat = -10.5±13.8 grams, LDL-C = -5.0±25.4 mg/dl). The initial model was significant, F(1,230) = 11.35, p < .01, with change in BMI predicting change in LDL-C (β = .22, p < .01) and accounting for 4.7% of the variance. Entry of change in saturated fat intake (p = .093) did not significantly improve the final model, F(2,229) = 7.14, p < .01. These findings suggest that the beneficial impact of lifestyle intervention on LDL-C is more closely related to weight loss than to a decrease in saturated fat intake.

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A-117f
PSYCHOSOCIAL CORRELATES OF MOTIVATION FOR WEIGHT LOSS AMONG OVERWEIGHT/OBESE VETERANS

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Background: Perceived importance and confidence are two factors commonly addressed in interventions aimed at enhancing/maintaining motivation for weight loss; however, these two variables have not been directly assessed in studies of overweight/obese individuals interested in weight loss. The current study examines psychosocial correlates of overweight/obese Veterans' ratings of importance and confidence for weight loss.

Method: The sample included 45,683 overweight/obese Veterans who were interested in weight management and completed the MOVE!23 survey, which assesses demographics, physical and mental health comorbidities, motivation for change, social support, and body image. Independent samples t-tests and ANOVAs were conducted to examine relationships among the aforementioned variables and participant ratings of importance and confidence for weight loss.

Results: Participants reporting greater social support also reported more perceived importance and confidence for weight loss (p< .001). For other variables, there was an inverse relationship between importance and confidence. Specifically, participants who reported presence of one or more of the following: binge eating, depression, PTSD, poorer body image, or poorer overall health rated weight loss as more important but reported less confidence in their ability to lose weight (p< .001) than those without these comorbidities.

Conclusions: Results demonstrate an inverse relationship between importance and confidence (i.e., higher importance but lower confidence) in individuals who endorse binge eating, psychiatric diagnoses, poorer body image, or poorer overall health, suggesting they may need additional assistance with enhancing and maintaining motivation to make lasting behavioral changes for weight loss. Future research examining why patients with overweight/obesity and comorbid psychiatric diagnoses are more likely to perceive weight loss as more important may explain the inverse relationship between importance and confidence found in the current observational study.

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A-117g
INFLUENCE OF HOME ENVIRONMENT ON EATING PATTERNS AND WEIGHT LOSS AMONG OBESE WOMEN FROM RURAL COMMUNITIES

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Rural communities in the U.S. have higher rates of obesity compared to the general population, and several studies have suggested that rural households have limited access to healthy foods such as fresh fruits and vegetables. However, little research attention has been given to the contribution of the home food environment to eating patterns and weight management among adults in rural areas. The current study examined the influence of healthy and unhealthy foods in the home on dietary intake and body weight in a sample of obese adults enrolled in a 6-month weight management program. The participants were 166 obese women from rural counties of northern Florida (M±SD, age = 59.7±6.2 years, BMI = 36.5±4.8 kg/m2). During the intervention, participants were encouraged to make changes to their dietary intake such as decreasing calories and saturated fat, choosing lean sources of protein and increasing consumption of fiber through intake of fruits and vegetables. At baseline, height was determined using a stadiometer. At baseline and Month 6, weight was measured with a balance beam scale, and the home food environment and dietary composition were assessed using the Family Eating and Activity Habits Questionnaire and the Block Food Frequency Questionnaire, respectively. At baseline, the home food environment was not directly associated with BMI (p = .808). However, at Month 6, the home food environment was significantly associated with BMI (r = -.16, p = .039) such that having a greater number of healthy foods in the home was associated with a lower BMI. The mediating role of the consumption of saturated fat, carbohydrates, protein and fiber was examined using the Preacher and Hayes model for multiple mediation. Results showed that consumption of saturated fat significantly mediated the relationship between the food environment and BMI (95% CI [-.24, -.01], p < .05). These findings suggest that modifying the home environment by decreasing the presence of high-fat foods may support weight loss in obese individuals from rural communities.

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A-118a

CORRELATES OF NEGATIVE HEALTH IN CALL CENTER SHIFTWORKERS

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The call center industry is a major employer in India. Its extensive reliance on shiftwork to serve Western time zones may relate to high attrition. Additionally, call center work entails potential interpersonal stressors, such as acculturation adjustments to suit Western clientele. The health implication of these factors has not been systematically examined. This study examined predictors of negative health report among call center shiftworkers. It was hypothesized that sleep inadequacy, interpersonal job stressors, stress from work schedule, and engagement coping (but not disengagement coping) would predict negative health report. Participants (n=160) were recruited from six call center companies in Bangalore, India, a global outsourcing hub. Participants had a mean age of 25.5 years (SD=4.52). Most were male (66.2%), single (81.1%), and had no dependents (62.6%). Participants worked an average of 20.89 months (SD=19.28) in the industry.Scales from the Standard Shiftwork Index (Barton, Costa, Smith, Spelten, Totterdell, & Folkard, 1995) were used to measure all variables except interpersonal job stressors. A scale was developed for this. All scales showed good internal consistency. Simultaneous regression revealed that: 1) Inadequate sleep predicted negative health report (β= 0.417, p<0.01), highlighting the need for sleep hygiene skill development. 2) Interpersonal job stressors (having to deal with offensive callers, and adopt a new name and accent) were associated with negative health report (β= 0.232, p<0.01). 3) Given the youth and lack of familial responsibilities of most participants, it was not surprising that stress from work schedule did not predict negative health report. 4) Engagement coping predicted lower negative health report (β= -0.244, p<0.01), highlighting the importance of dealing positively with job stress.This is the first study to systematically investigate sleep inadequacy, interpersonal job stressors, stress from work schedule, and coping on the physical health of call center shiftworkers. The findings hold theoretical value and address the paucity of research into this burgeoning employment sector.

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A-135a

DEVELOPMENT, RELIABILITY AND VALIDITY OF THE HEALTH RISK BEHAVIORS INVENTORY

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Recent estimates have suggested that approximately half of American deaths are due to behavioral causes, including inadequate physical activity, unhealthy diet, inadequate sleep, risky sexual behavior and use of cigarettes, alcohol and other drugs. Due to the clinical and public health significance of these behaviors, practical and valid assessment tools are needed for use in the general adult population. The purpose of the present study was to create the Health Risk Behaviors Inventory (HRBI), which is a self-report measure of 7 health risk behaviors. Survey data were collected from over 1000 men and women, 39 of whom also participated in cognitive interviews to provide qualitative feedback about the measure's content and design. Reliability of each subscale was estimated with Cronbach's alpha and item-total correlations. Concurrent validity was evaluated by examining the associations between the HRBI and the physical and mental health outcomes of the SF-36. Convergent validity was evaluated for each HBRI subscale by examining its association with a well validated measure of each individual health risk behavior including the International Physical Activity Questionnaire, The Rapid Eating and Activity Assessment for Patients, the Pittsburgh Sleep Quality Index, the Alcohol, Smoking, and Substance Involvement Screening Test, the Environmental Tobacco Smoke Scale, and 5 items from the Behavioral Risk Factor Surveillance Survey. In addition, these data informed several modifications to the format and content of the HRBI. The final version of the HRBI shows promise as a reliable and valid assessment of multiple health risk behaviors in the general adult population.

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A-135b

BODY IMAGE IN 6-9 OLD GIRLS: THE ROLE OF PERCEIVED REALISM OF MEDIA AND INTERNALIZATION OF THE THIN IDEAL

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Previous research has established that adult-focused media contributes to poor body image attitudes in adult and teenage women, which is in turn associated with negative health consequences such as disordered eating. The body image attitudes of children are also negatively affected by adult-focused media. Although child-focused media contains similar thin-female idealized messages, the impact of this type of media on the body image of young girls has not been well studied. This study examined 6-9 year old girls' body image attitudes in relation to internalization of the thin ideal and perceived realism of media. Internalization and perceived realism were significantly correlated (r = .64, p < .01) such that children with higher perceived realism of media reported higher internalization of the thin ideal. Ideal body was significantly correlated with internalization (r = -.43; p < .05), such that the higher a girl's internalization of media portrayed female body forms, the thinner figure she chose as the "best way for a girl to look." This suggests that a contributing factor to media induced body dissatisfaction may be how much an individual perceives the media to be realistic. Further research into media literacy to combat body dissatisfaction is suggested.

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A-135c

WHY DO COMMERCIAL WEIGHT-LOSS PROGRAM USERS EAT A HEALTHY DIET?: TESTING A MOTIVATIONAL MODEL GROUNDED IN SELF-DETERMINATION THEORY

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Objective: The aim of this study was to test a conceptual model of healthy eating behaviors derived from Self-Determination Theory (SDT) in people using commercial weight-loss programs.

Method: Data were collected from a purposive sample (N = 138; Mage = 36.67 ±16.43 years) enrolled in one of five commercial weight-loss programs. Most participants were married/common-law (77.70%), university educated (62.32%), Caucasian/White (79.74%), and within their inaugural year of program enrollment (M = 1.60 ±4.00 years). Body Mass Index (BMI) values ranged from 18.14 to 49.49 kg/m2 (62.32% of participants reported a BMI > 25.00 kg/m2). Each participant completed a multi-item questionnaire using an encrypted website on a single occasion.

Results: Descriptive statistics indicated that participants reported greater endorsement of self-determined rather than controlled motives for eating behavior. Weight-management was most strongly endorsed as a goal for healthy eating. Structural equation modeling analyses supported the tenability of the conceptual model. Extrinsic goals ($\gamma = 0.52$; $p < .05$) predicted greater endorsement of controlled eating motives (R2 = 0.27) whereas intrinsic goals ($\gamma = 0.74$; $p < .05$) predicted greater endorsement of autonomous eating motives (R2 = 0.55). Autonomous ($\gamma = 0.36$; $p < .05$) not controlled ($\gamma = -0.15$; $p > .05$) motives predicted greater frequency of healthy eating per day (R2 = 0.14).

Conclusions: Overall, the findings provide support for the motivating role of eating goals that differ in their extrinsic/intrinsic foci. Autonomous motives are implicated as a key factor regulating healthy eating in this cohort. Commercial weight-loss programs interested in promoting healthy eating amongst clients via the motivational power of goals could benefit from de-emphasizing markers of external reinforcement yet focusing on intrinsic aspects of growth potential.

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A-135d

TWEETMENT IN 140 CHARACTERS OR LESS? A CONTENT ANALYSIS OF CYSTIC FIBROSIS SOCIAL NETWORKS ON TWITTER

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Cystic fibrosis (CF) is the most common fatal genetic disease affecting children and young adults in Canada (Cystic Fibrosis Canada, 2011). Evidence-based practice for infection control discourages contact between individuals with CF to prevent pathogen transmission (Saiman & Siegel, 2004). For many, these safety guidelines lead to isolation, which can have a profound psychosocial impact. Social isolation is often compounded by the demanding management of CF which includes up to 4 hours of intensive treatment daily. Extant research has investigated the nature of social support available to individuals living with CF. The potential utility of Internet-based social networking sites has recently been highlighted in the promotion of health behaviours and social support (Prochaska et al., 2011). Although adolescents with CF have embraced social networking, little research has been conducted describing the function of social media for this population. The purpose of this study was to explore the utility of the popular micro-blogging website, Twitter, for a population of individuals who self-identified as being affected by CF. Data were obtained using the search term "cystic fibrosis" to ascertain all publicly available Twitter accounts that acknowledged an association with CF. Content analyses were then conducted to examine user profiles and describe the role of Twitter as a tool for self-presentation and social connectivity. Thematic emergent categories were identified using an iterative process of inductive emergent thematic coding (Strauss & Corbin, 1997) and findings were interpreted within the theoretical framework of Social Cognitive Theory (Bandura, 1986). Results indicate that Twitter offers individuals affected by CF an outlet for social support and information dissemination. The Twitter platform appears to hold potential for evidence-based interventions that facilitate social support and behaviour change on a systems level. These findings suggest that Twitter may offer a safe means to promote adherence to CF treatment while addressing the psychosocial consequences of the disease.

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A-135e

PATIENT UNCERTAINTY AS A PREDICTOR OF HOSPITALIZATION IN COPD

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High perceived uncertainty about one's medical illness, such as uncertainty about how to manage the illness and future course of illness, is associated with adjustment problems such as depression, anxiety, and reduced quality of life in health conditions such as cancer and asthma. However, prior studies have not examined whether perceived uncertainty is associated with medical outcomes such as hospitalization. The current study investigates whether ambiguity (one component of uncertainty) is associated with any subsequent hospitalization among individuals with alpha-1 antitrypsin deficiency (AATD) associated COPD. AATD is an autosomal co-dominant disorder that places patients at increased risk of COPD. Two hundred seventy-six patients (mean age = 60.2, 47.1% female) completed questionnaires at three times, each one year apart. At baseline participants completed the ambiguity subscale of the Mishel Uncertainty in Illness Scale for Adults (MUIS-A) and reported whether they had been hospitalized for COPD in the past year. At each follow-up, participants reported whether they had been hospitalized for COPD in the past year. A simultaneous multiple logistic regression model was calculated, with any hospitalization during the two year follow-up as the dependent variable. The following predictors were included: ambiguity, age, gender, education, tobacco exposure, alpha-1 genotype, oxygen use, augmentation therapy use (a treatment specific to AATD), and hospitalization in the year before baseline. Individuals who reported more ambiguity at baseline had a higher odds of being hospitalized during two year follow-up (OR 1.05, $p = .02$). This study moves beyond prior research focused on uncertainty and adjustment outcomes to show that that patients' ambiguity about COPD is associated with an increased risk of hospitalization. Future research examining the reason for the association with hospitalization (e.g., anxiety, medical status) will be important.

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A-135f

IMPROVING THE QUALITY OF ASTHMA CARE USING THE INTERNET

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Background: Asthma is a significant health burden, as more than 23 million Americans are diagnosed with this condition. Despite widespread dissemination of evidence-based guidelines, more than half of adults with asthma are uncontrolled. The purpose of this randomized control trial was to test the efficacy of an intervention designed to help patients know what questions to ask their provider, as well as to know when they need a provider visit sooner than scheduled by providing them with access to an asthma module of a patient activation website.

Methods: 408 participants were randomized 1:1 to one of two conditions: Participants in the Intervention Condition (IC) received feedback about their asthma control, including questions to ask their asthma care provider at their next visit. Participants in the Control Condition (CC) received feedback about questions regarding preventive services (e.g., cancer screening) that they should ask their primary care provider. The main outcome measure is the change in the percentage of patients in each group whose asthma is controlled according to the Asthma Control Test (ACT) and NAEPP guidelines.

Results: 330 participants provided data for baseline and 6 month measures (IC: N=161; CC: N=169). IC participants reported a significantly greater mean increase in the overall ACT score than CC participants (1.91 vs 0.96; p=.015). Similarly, significant group differences were observed on participants' improved ratings of their asthma control (0.31 vs 0.12; p=.040) and the reduced frequency that they were awoken by their asthma symptoms (0.44 vs 0.12; p=.040). Regarding medication use, IC participants reported significant increases in the mean total number of asthma medications they used between baseline and 6 months.

Conclusions: IC participants reported greater improvement in asthma control compared to the CC. Results indicate that individuals with chronic conditions, such as asthma, may benefit from using patient activation websites with tailored feedback.

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A-145a

INDIVIDUALLY TAILORED, WEB-BASED CHRONIC PAIN MANAGEMENT: A NATURALISTIC OUTCOMES STUDY

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Objective: To examine the effects of a tailored online chronic pain management program on subjective pain, activity and work interference, quality of life and health, and stress.

Design: Eligible participants accessed the online pain management program and informed consent via participating employer or health care benefit systems; baseline, 1, and 6-month assessments were completed online. Subjects: The mean participant (N = 645) age was 56.16 years (SD =12.83), most were female (69.3%), and Caucasian (78.8%). Frequent pain complaints were: joint (38.6%), back (33.8%), and osteoarthritis (27.0%). Intervention: The online pain management program uses evidence-based theories of cognitive-behavioral intervention, motivational enhancement, and health behavior change to address self-management, coping, medical adherence, social support, comorbidities, and productivity. The program content is individually tailored on several relevant subject variables.

Results: Both pain intensity, and unpleasantness decreased significantly from baseline to 1 and 6 month assessments ($p < .05$). The magnitude of these effects was medium to large-sized. Trends for decreases in pain interference reached significance at 6 months ($p < .05$). At 6-month evaluations the percentage of the sample reporting "fair" or "poor" quality of life decreased significantly ($p < .05$).

Conclusions: The tailored online chronic pain management program exerts significant beneficial effects on pain at 1 and 6 months post treatment. Significant improvements in quality of life and reductions in pain interference were also found at 6 months post-treatment.

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A-145b

SUBJECTIVE AND FUNCTIONAL DISABILITY MEASUREMENT IN RHEUMATOID ARTHRITIS: WHAT ACCOUNTS FOR DISCREPANCIES?

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Disability among patients with chronic pain can be assessed functionally (behaviorally) or subjectively (self-report). However, discrepancies—including low or zero correlations—between these methods are commonly reported. Research suggests that subjective disability may be more influenced by psychosocial factors than disability measured during functional tasks, leading to under/over reporting, but further investigation is needed. This study sought to identify predictors of discrepancies between subjective and functional disability in patients with rheumatoid arthritis (RA).

We recruited from rheumatology clinics a sample of 181 adults with RA (84% women; 55% White, 44% Black, 1% Hispanic; age M = 54.6 years; education M = 13.5 yrs; RA duration M = 11.2 yrs). We assessed predictors (e.g., VMPCI, PANAS), subjective disability (AIMS-2 Physical Dysfunction), and functional disability (composite of walking speed, grip strength, and pain behavior) . Subjective and functional disability measures (which correlated $r = .55$, $p < .001$) were standardized, and a discrepancy score calculated (functional - subjective).

Three variables were significantly associated with functional > subjective disability: being White ($r = .28$, $p < .001$) more educated ($r = .19$, $p = .010$), and not receiving medical disability benefits ($r = .26$, $p = .001$). Four variables were significantly associated with subjective > functional disability: depressed mood ($r = .25$, $p = .001$), negative affect ($r = .20$, $p = .009$), subjective stress ($r = .16$, $p = .035$), and passive/dysfunctional coping ($r =.24$, $p = .003$). Thus, markers of higher SES were associated with functional > subjective disability, whereas markers of poorer psychological health and dysfunctional coping were associated with the reverse. Psychological and rehabilitative interventions, which commonly target coping and emotional functioning, may be of most benefit to RA patients who present with disproportionately high levels of subjective disability.

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A-145c

ECOLOGICAL MOMENTARY ASSESSMENT OF SMOKING BEHAVIOR IN PATIENTS WITH PERSISTENT PAIN: A FEASIBILITY STUDY

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Smoking rates among persistent pain patients are high. Information on smoking behavior in this population is limited and most prospective studies have relied on patients to retrospectively recall their past smoking and pain events. This study evaluated the feasibility of utilizing Ecological Momentary Assessment (EMA) to capture real-time data on smoking behavior in patients with persistent pain. Feasibility was determined by rates of recruitment (> 30%) and retention (> 70%), study acceptability (moderate-high satisfaction), and data collection completion (> 70%). Eligible outpatients (n = 36) were diagnosed with chronic pain, smoked > 3 cigarettes daily, and completed daily random assessments (M = 44.2; SD = 24.3) on a handheld computer for one week that evaluated pain, smoking, and other variables. Participants (66.6% women; 33.3% Caucasian, 38.8% Hispanic, 25.0% African American, 22.2% and 13.9% identifying as "other") smoked M = 17.6 (SD = 9.4) cigarettes daily, with 58.3% reporting severe nicotine dependence. Nearly all had back and lower extremity pain (66.6%), with average worst pain intensity in the past week = 8.6 (SD = 1.5). Of 63 eligible patients, 69.8% accepted the study and 100% completed the study. Further, 20 participants (55.5%) answered > 75% of assessments. Most participants reported feeling "very comfortable" with using the handheld computer (comfort was rated from 1, "not at all comfortable" to 5, "extremely comfortable"; M = 4.4/5.0). Most reported that answering the alarms and completing the questions was only a "little inconvenient" (inconvenience was rated from 1, "not at all inconvenient" to 5, "extremely inconvenient"; M's = 2.0/5.0 and 1.4/5.0, respectively). Based on these data, EMA is feasible and likely to be a highly accurate method for assessing pain and smoking behavior. Additional EMA studies may guide the design of new interventional strategies for smoking cessation that are tailored to the needs of patients with persistent pain.

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A-145d

PREDICTORS OF MULTIDISCIPLINARY TREATMENT OUTCOME IN FIBROMYALGIA: A SYSTEMATIC REVIEW

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Objectives: To identify outcome predictors for multidisciplinary treatment in patients with chronic widespread pain (CWP) or fibromyalgia (FM).

Methods: A systematic literature search in PubMed, PsycINFO, CINAHL, Cochrane Library, EMBASE and Pedro. Selection criteria included: age over 18; diagnosis CWP or FM; multidisciplinary treatment; longitudinal study design; original research report. Outcome domains: pain, physical functioning, emotional functioning, global treatment effect and 'others'. Methodological quality of the selected articles was assessed with adapted Hayden criteria. Qualitative data synthesis was performed to identify the level of evidence.

Results: 14 studies (all with FM patients) fulfilled the selection criteria. Six were of high quality. Poorer outcome (pain, moderate evidence; physical functioning and quality of life, weak evidence) was predicted by depression. Similarly, poorer outcome was predicted by the disturbance and pain profile of the Minnesota Multiphasic Personality Inventory (MMPI), strong beliefs in fate and high disability (weak evidence). A better outcome was predicted by a worse baseline status, the dysfunctional and the adaptive copers profile of the Multidimensional Pain Inventory (MPI), and high levels of pain (weak evidence). Some predictors were related to specific multidisciplinary treatment (weak evidence). Inconclusive evidence was found for other demographic and clinical factors, cognitive and emotional factors, symptoms and physical functioning as predictors of outcome.

Discussion: Depression is a predictor of poor outcome in FM (moderate evidence). Baseline status, specific patient profiles, belief in fate, disability, and pain are predictors of treatment outcome (weak evidence). Some factors predict the outcome of specific forms of treatment.

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A-162a

SELF-MANAGEMENT INTERVENTION WITH SEDENTARY WOMEN IMPROVES CARDIO-RESPIRATORY ENDURANCE AND MOTIVATION TO EXERCISE

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The U.S. Task Force on Community Preventive Services recommends that programs intended to help adults incorporate physical activity into their daily routines teach self-management skills. Mental imagery is a self-management skill linked to exercise behavior. Studies testing the impact of mental imagery on exercise are lacking. Using self-determination theory as a framework, this randomized trial tested the impact of a 10-week peer-delivered self-management intervention on the cardio-respiratory endurance and motivation to exercise with overweight adult women. We assessed 47 women for eligibility, 43 were randomized to experimental (peer-mentored plus) and control (peer mentored only) conditions, and 32 completed the study (Mage = 19.91, Mbody mass index = 26.30). Pre- and post-test measures included the Queens College Step Test and the Exercise Motivation Scale. Between testing, participants completed 3 meetings with peer-mentors focused on self-regulatory skills. Individuals in the peer-mentored plus group also practiced mental imagery. Participants across both study conditions significantly improved their cardio-respiratory endurance (p=.000, partial η2 = .35) but no time-by-group interactions were observed. A significant time effect for self-determined motivation to exercise was also observed (p = .001, partial η2 = .304). Importantly, a time-by-group interaction was significant (p = .009, partial η2 =

.210) indicating that experimental group participants experienced greater gains in self-determined motivation to exercise compared to controls. Peer mentoring can help improve cardio-respiratory fitness with overweight women while mental imagery may provide added motivation.

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A-162b
CHILDREN PHYSICAL ACTIVITY, SCHOOL LUNCH, AND BODY MASS INDEX

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Background: The physical inactivity epidemic among children has contributed to child obesity. Schools can be an effective source of physical activity opportunity. Methods: A cross-sectional sample of 1,306 children was drawn from the Panel Study of Income Dynamics (PSID) Child Development Supplement (CDS), 2007. The aim of this study was to determine the role of in-school physical activity on body mass index (BMI) percentile among middle and high school aged children. Multinomial logistic regression was used to assess the associations between the independent variable, physical activity, and the dependent variable, BMI percentile. Results: After adjusting for covariates, children who had no physical activity during PE were much more likely to be obese than normal weight in comparison to those who met the national requirements (OR = 1.58, CI = 1.14, 2.20). The findings from this study also illustrate the importance of school-based nutrition when evaluating BMI percentile for adolescents. Children who ate lunch offered by the school, regardless of funding source, were much more likely to be obese than normal weight. Conclusions: This study suggests that meeting national guidelines for PE-related physical activity may be effective in preventing obesity, while school lunch, regardless of funding source, may contribute to obesity.

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A-162c
PSYCHOSOCIAL CHANGES IN PARTICIPANTS OF A COMMUNITY BASED PARTICIPATORY RESEARCH (CBPR) WALKING INTERVENTION

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The integration of behavioral theory into CBPR trials is essential, but psychosocial factors that may help explain behavioral changes are often not accounted for in this type of intervention. Self-regulation, processes of change, and social support have been identified as valued psychosocial constructs associated with initiation and maintenance of physical activity in general (Hallam & Petosa, 2004) and with African Americans specifically (Harley et al., 2009; Peterson, Yates, & Hertzog, 2008). Therefore, we designed a theoretically based intervention aimed at enhancing physical activity and a healthy diet by also increasing social support, ability to self-regulate, and facilitating participant progression through the processes of change.

Two hundred and sixty nine African Americans participated in the HUB City Steps intervention aimed at enhancing physical activity and healthy diet. For this project, changes in perceived social support, processes of change, and treatment self-regulation for diet and physical activity were assessed at baseline and six months. ANOVA revealed that statistically significant increases occurred in Perceived Social Support from Walking Coach, Perceived Social Support from Walking Group and Processes of Change.

While statistically significant psychosocial changes were noted in this sample, the link between these changes and ultimately, impact on behavior must be further elucidated. Increasing the depth of understanding regarding psychosocial, environmental, and physiological factors that are related to mechanisms of behavior change related to walking and/or physical activity is necessary for developing effective physical activity behavior change interventions.

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A-162d
PROCESSES OF CHANGE CONSTRUCTS PREDICT WALKING BEHAVIOR IN PARTICIPANTS OF A COMMUNITY BASED PARTICIPATORY RESEARCH (CBPR) WALKING INTERVENTION

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The importance of physical activity (PA) for physical and mental health is well documented. Given the importance of PA in the etiology, treatment, and prevention of many chronic diseases such as cardiovascular disease, it is important to understand how PA initiation, performance, and maintenance can be enhanced. The transtheoretical model emphasizes the experiential and behavioral processes of change that individuals may follow when changing health behaviors. The purpose of this study was to assess the processes of change, using path analysis, to determine which processes had the greatest ability to predict the self-reported amount of walking in a sample of Southern, primarily female and African American participants (n=179). Processes of change were measured at baseline and three months while physical activity was measured using steps reported on pedometer walking logs submitted weekly. For experiential processes, only social liberation emerged as a significant predictor of steps walked. For behavioral processes, reinforcement management and counterconditioning emerged as significant positive predictors of steps walked while self-liberation emerged as a negative predictor. Based on these findings it appears that culturally appropriate physical activity interventions for African Americans might benefit from a focus on enhancing and utilizing the social aspects of physical activity, assess the importance of individual versus group activity, and determining what individuals find reinforcing.

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A-162e

CHANGES IN ILLNESS PERCEPTIONS, HRQL AND EXERCISE AS A FUNCTION OF PARTICIPATION IN CARDIAC REHABILITATION

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The Common Sense Model: (CSM) considers individuals' perceptions of their illness as they influence individuals' behavioral approaches to rehabilitation. Previous research in cardiac rehabilitation (CR) has linked illness perceptions (IPs) to CR adherence but has not examined the potential influence of CR on IPs over time. Framed by CSM, the IPs of CR initiates at baseline were examined relative to change in IPs (e.g., perceived cardiac symptoms) at CR program completion and in relation to exercise therapy during the 3-months of a standard CR program. Baseline IPs were used to categorize CR initiates to stronger/weaker IP groups. A prospective design was used to examine change over time. Previous educational CR interventions have reported successful modification of IPs. Thus, our purpose was to investigate potential change in IPs as a function of 3 months of a standard CR program experience. Health-related quality of life (HRQL) and exercise volume during the CR program were also examined. Participants (N =49) completed the IP Questionnaire, SF-36 (HRQL) and reported CR exercise volume. Stronger (more perceived symptoms: n = 28) and weaker (less perceived symptoms: n = 21) IP baseline groups were determined using cluster analysis. ANOVAR revealed a group by time interaction for both mental (p< .01) and physical HRQL (p <.02) where stronger IP individuals improved from baseline to CR completion. Stronger IP individuals reported a lower volume of exercise therapy than weaker IP individuals after 3 months (p = .04). An examination of participants' IPs over time also revealed a significant group by time interaction (p< .009) such that stronger IP individuals at baseline decreased symptom-identity scores by the end of CR. The CR experience may contribute toward a reduction in IPs commensurate with the increase in HRQL, an important outcome of standard care. A potential implication is to develop targeted interventions to couple with standard care to reduce IPs.

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A-162f

AN INVESTIGATION OF ACTIVITY LEVEL AS A MODERATOR OF PHYSICAL ACTIVITY AD PERCEPTIONS AND ATTENTION

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Participating in physical activity is beneficial to health, yet the majority of adults are not sufficiently active (Colley et al., 2011). Persuasive messages are used to encourage people individuals to engage in more physical activity (Kahn et al., 2002). There is little evidence on whether message perceptions and preferences for image-based ads differ among people individuals who are more or less active. The purpose of the current study was to investigate whether activity level moderates perceptions of and attention to physical activity ads. Participants (n = 30, Mage = 20.8 ± 3.04 yrs) were grouped as low to moderately active (n=16) or highly active according to the International Physical Activity Questionnaire scoring algorithm. They were shown a series of five physical activity ads while their eye movements were recorded using eye-tracking technology. Ad perceptions were evaluated on ratings of appeal and convincingness. Low to moderately active participants perceived ads to be significantly less convincing t(15)=2.23, p<.05 and less appealing t(15)=2.06, p<.05 than highly active participants. Activity status did not moderate levels of attention to ad elements. However, low to moderately active participants' ratings of ad convincingness r=.494, p<.05 and appeal r=.499, p<.05 were significantly correlated with the amount of time they spent looking at the image in the ad. Attention and ad persuasiveness were not correlated among highly active participants. In accordance with theories of information processing, low to moderately active adults may use images as a cue for judging the persuasiveness of physical activity ads. Future studies should investigate whether ads targeted at less active individuals that contain salient images have a greater impact on perceptions of the message.

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A-162g

PHYSICAL ACTIVITY PROMOTION BY PHYSICIANS: DOES SKIN COLOR AND ACCENT FAMILIARITY IMPACT SOURCE CREDIBILITY?

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Source credibility has been highlighted as a key component of effective physical activity (PA) messaging. Physicians are often key sources of health information and with the need to address growing levels of inactivity, are increasingly being called on to provide advice regarding PA. This at a time where there is pressure on health care resources in Canada resulting in an increased recruitment of doctors from around the world. In this context, it may be important to examine whether ethnicity impacts source credibility of physicians in the context of PA promotion. This is particularly the case in light of research suggesting that physicians' perceptions of their patients may differ based on the patient's skin color, and marketing literature indicating that accent familiarity can impact individuals' appraisals of the product and company. The current study examined the impact of ethnicity (operationalized as skin color and accent familiarity) on perceptions of physicians providing PA advice. Using a 2 (skin color) x 2 (accent familiarity) design, 205 undergraduates (M=19yrs, 93% Caucasian) were assigned to watch 1 of 4 experimental PA promotion videos featuring a physician as the spokesperson. Participants then completed measures of perceived credibility, proxy-efficacy, spokesperson effectiveness, and message recall. MANOVA revealed significant main effects for both skin color (p=.002) and accent familiarity (p<.001). Participants reported greater confidence in Caucasian physicians as compared to Indian physicians (p=.02), and saw Caucasian physicians (p<.001) and those with a familiar accent as more effective spokespeople (p<.001). These main effects were superseded by a significant interaction (p=.01) in which the Indian physician with an unfamiliar accent was rated as less effective as a spokesperson compared to all other conditions (p<.05). The findings suggest that while ethnicity may impact perceptions of effectiveness as a spokesperson in PA promotion campaigns, it does not impact perceptions of physician's credibility or message recall around PA.

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A-162h

WITHIN-DAILY COVARIATION BETWEEN AFFECT AND PHYSICAL ACTIVITY IN CHILDREN: AN ECOLOGICAL MOMENTARY ASSESSMENT STUDY

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Background: There is growing interest in the complex interrelationships between emotional processes and physical activity in children. However, research in this area has relied upon cross-sectional paper-and-pencil and experimental laboratory methods, which are unable to examine within-daily covariation between affect and physical activity. Purpose: This study used a real-time data capture strategy, called Ecological Momentary Assessment (EMA), to assess (1) temporal relationships between affect and physical activity and (2) whether physical activity is associated with affective variability (i.e., emotional instability). Methods: Children (N = 119) (ages 9-13 years) (52% male, 32% Hispanic) completed eight days of EMA monitoring with 3-7 randomly-prompted electronic surveys per day during non-school time (40 EMA surveys total). Administered through a mobile phone (HTC Shadow, T-Mobile), the EMA surveys measured positive affect (2 items; happy and cheerful; $\alpha = .88$) and negative affect (4 items; stressed, mad/angry, nervous/anxious, sad; $\alpha = .75$). EMA responses were time-matched to the number of minutes of moderate-to-vigorous physical activity (MVPA) (measured by GT2M accelerometer) in the 30 minutes before and after each EMA survey. Data were analyzed using mixed models and mixed-effects location scale modeling in SAS. Results: Total MVPA was negatively associated with mean ratings for negative affect (r = -.194, p = .036). Children with more MVPA minutes before the EMA prompt reported significantly lower levels of negative affect at that EMA prompt (β= -0.05, p=.006). Mean level MVPA before prompts was associated with less variability in positive affect (τ = -0.25, p <.01) across the entire monitoring period. Conclusions: Results suggest that children respond to physical activity with reduced negative affect, which may result in lower overall negative affect among more physically active children. In contrast, physical activity appears to stabilize positive affect.

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A-162i

THE USE OF ACCELEROMETERS FOR THE MEASUREMENT OF PHYSICAL ACTIVITY IN SEDENTARY VETERANS WITH TYPE 2 DIABETES: LESSONS LEARNED FROM ANALYSIS AND INTERPRETATION OF DATA

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Measurement of physical activity (PA) is challenging as many commonly used instruments lack adequate reliability and validity. The advent of more affordable accelerometry brought new hope in providing an objective measure of PA. However, most present methods of data analysis and interpretation are based on usage in healthy adults and strategies may need to be adjusted for medically-compromised populations. This presentation reviews decisions made during analysis of baseline accelerometer data obtained from highly deconditioned, sedentary veterans with Type 2 diabetes enrolled in a PA trial (n=80). Initially, categorical cut points were used to determine amount of time spent in different intensity levels of activity and, not surprisingly, variability was nearly absent with the vast majority of activity in the sedentary range. Additionally, algorithms based on healthy adults caused the interpretive software to exclude time when participants were sedentary for extended periods, significantly skewing the data. These discoveries necessitated an evolving approach to analysis of the PA data. To examine meaningful change in this population, continuous data (i.e. activity counts per day) were examined, rather than categorical data. Several methods were used to increase the likelihood actual wear-time was captured, including changes in default parameters for non-wear time and use of participant diaries tracking daily wear of accelerometers. After extending default parameters, the number of valid days and wear-time increased by 5.4% and 8.1%, respectively. Diary confirmation increased the number of valid days and wear-time by another 3.9% and 2.0%, respectively. Such strategies may enhance the validity of accelerometer data that is obtained from populations where sensitive measurement of highly sedentary behavior is necessary to detect subtle, but clinically significant changes in PA.

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A-162j

TRANSLATING RESEARCH TO THE COMMUNITY: A PILOT STUDY TO DETERMINE IF A COMMUNITY-BASED BOOK CLUB CAN INCREASE PHYSICAL ACTIVITY AMONG WOMEN

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Background: The purpose of this study was to determine if Fit Minded, a community-based (face to face and internet) program adapted from a successful research study, was effective for increasing self-worth, self-efficacy, and physical activity (PA) in adult women. A second purpose was to describe Fit Minded website use among women.

Methods: Fit Minded was a PA book club in which a facilitator targeted theoretical constructs during weekly book discussions. Women accessed additional support via the Fit Minded website through a blog, chat room, pedometer log, and resource page. Women completed questionnaires assessing: self-worth, self-efficacy, and PA before and after Fit Minded (8 months). Women's website usage included the number of website logins and pages visited.

Results: Nine of 16 Fit Minded members provided consent to use their data for research. Significant increases were observed in self-efficacy (p=0.020) and leisure-time PA (Godin (p=0.008) & MAQ (p=0.039)). Five women accessed the website 38+ times, with 56% of log-ins occurring during the first half of Fit Minded. The blog page was accessed most often, and blog access was consistent throughout the program, with a little more than half of visits occurring within the first half of Fit Minded.

Conclusion: Few studies have evaluated the potential of community-based programs to promote PA behaviors. Our results provide initial evidence that a book club may be an attractive community forum to help women improve their self-efficacy and PA participation. Additional research aimed at further exploring the impact of the website, particularly the blog, on women's self-efficacy and PA is warranted.

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A-167a

HOW DO PREGNANT WOMEN AND WOMEN UP TO ONE-YEAR POSTPARTUM USE THE INTERNET FOR HEALTH BEHAVIOR INFORMATION?: A DESCRIPTIVE STUDY

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Introduction: Pregnancy is a significant time in a woman's life in which physical inactivity and unhealthy eating habits can result in several adverse health consequences such as gestational diabetes or hypertension. One potential avenue for improving pregnant women's healthy behaviors is the Internet. However, there is minimal research on how pregnant women use the Internet to improve their health behaviors.

Methods: Women in a county in Nebraska who were at least 19 years of age and pregnant or up to one year postpartum were recruited for this study (N=284). The study was funded by a University of Nebraska Omaha FIRE grant. Data was collected using survey and focus group methodology. The survey was modified from a preexisting reliable and valid survey to assess Internet usage in pregnant women (Lagan, 2010) with added questions regarding physical activity, nutrition, and breastfeeding.

Results: Most women used the Internet for pregnancy (94%), nutrition (81%), or physical activity (75%) related information. Women reported higher confidence for decision making related to physical activity (79%) and nutrition (88%) after using the Internet than before (60% and 62% respectively). As a result of information found on the Internet, 26.3% reported increasing their physical activity and 40% felt the Internet influenced how their breastfeeding should be managed.

Discussion: The Internet may be a feasible mode for interventions aimed at improving health behaviors during and after pregnancy. Findings presented here will guide the design of an Internet based health behavior intervention for pregnant women in Nebraska.

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A-173a

MISUSE OF PRESCRIPTION MEDICATION AND HIGH-RISK DRIVING BEHAVIORS IN YOUNG ADULTS

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Accidental injuries are the fifth leading cause of death in the United States and the leading cause of death in young adults. The majority of such injuries occur during traffic accidents. The risks of drunk driving are well-recognized but less attention has been paid to other forms of intoxicated driving. In recent years, the non-medical use of prescription drugs (without a doctor's prescription) has increased dramatically, particularly in young adults. The present study examined the non-medical use of prescription drugs, driving while intoxicated from prescription drugs, and correlates of this behavior in a sample of 763 young college students (ages 18-25). Overall, 28% of participants reported the non-medical use of prescription drugs and 12% reported driving under the influence of prescription drugs. Individuals who reported driving while intoxicated from prescription drugs reported lower risk perceptions of this behavior and assessed the negative health and legal consequences of this behavior as both less likely and less severe (ps <.05). Participants who drove under the influence of prescription drugs also scored significantly higher on measures of hopelessness, impulsivity, and sensation seeking (ps <.05). Findings of the present study suggest that significant numbers of young adults engage in intoxicated driving due to the misuse of prescription drugs. Over the last 20 years, drunk driving fatalities in young adults have decreased dramatically in the United States. This trend is likely due to intensive educational campaigns, increased law enforcement, and efforts to change community norms. Similar efforts need to be directed to other forms of intoxicated driving.

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A-177a

A NUANCED ASSESSMENT OF CANNABIS USE AND RISKY SEXUAL BEHAVIORS

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Cannabis use is linked with increased risky sexual behaviors (RSB), yet more information is needed on the specific RSB that cannabis users engage in, whether RSB can be attributed to cannabis use, and whether RSB can be linked to cannabis use interfering with safe sex. A sample of 120 young adults was stratified by cannabis exposure. Cannabis users (CU) evidenced higher overall RSB, more sexual encounters and increased likelihood of having ever experienced a sex-related consequence (p-values <.03). Groups showed comparable rates of use of protection and the number of sexually related consequences endorsed (among those that experienced consequences), p-values >.17. Group differences could not be accounted for by differences in demographics, mental health, and other substance use. Among CU, more recent cannabis use (past 30 days) was associated with more overall sexual risk, more sexual encounters, less frequent use of protection, increased probability of having ever experienced a sex-related consequence, and a greater number of such consequences (p-values <.05). There were no associations between distal measures of cannabis use (12 months and lifetime) and RSB (p-values >.05). More self-report of cannabis interfering with safe sex practices was linked with higher overall RSB as well as more sexual encounters and less frequent use of protection (p-values <.05), but not associated with sex-related consequences (p-values >.05). Cannabis users engage in more RSB than nonusers and there is a dose-dependent association between amount of recent cannabis use and RSB. Importantly, these associations persisted above and beyond the influence of demographic, medical, mental health, and substance use confounds, underscoring cannabis' unique role in influencing RSB. Findings support the use of recent estimates of cannabis use when evaluating a cannabis user's level of sexual risk. Treatment of cannabis use may have important implications in reducing RSB and, conceivably, controlling the high rates of many serious individual and public health repercussions.

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A-191a

PRELIMINARY EVIDENCE THAT ENGAGEMENT IN COUNSELING MEDIATES THE EFFECTS OF PRE-TREATMENT SELF-EFFICACY AND MOTIVATION ON OUTCOME OF A CESSATION ATTEMPT IN SMOKERS WITH ADHD

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Background: Few studies have evaluated predictors of smoking cessation outcomes in smokers with ADHD. The purpose of this study was to examine pre-treatment thoughts about smoking abstinence (i.e., motivation to quit, perceived difficulty quitting, and self-efficacy in quitting) as predictors of smoking cessation outcomes in smokers with ADHD, and to determine the extent to which treatment adherence mediates these relationships.

Methods: Participants were adult smokers with ADHD (n=255) who were enrolled in a multi-site smoking cessation study and received either osmotic-release oral system methylphenidate (OROS-MPH) or placebo in combination with transdermal nicotine replacement and brief cessation counseling. Bootstrapped logistic regression models were generated to test main effects of thoughts about abstinence on smoking cessation outcomes and to examine treatment adherence as a mediator of these relationships.

Results: Motivation and self-efficacy, but not perceived difficulty quitting, predicted smoking cessation outcomes, as did all of the treatment adherence variables (i.e., percent sessions attended, counselor ratings of counseling adherence, and percent patch adherence). Tests of mediation indicated that counseling adherence partially mediated the relationship between smoking cessation outcomes and both pre-treatment motivation and self-efficacy.

Conclusions: Smokers with ADHD who have lower self-efficacy and/or motivation to quit may benefit from an intervention tailored to address these risk factors for lower treatment engagement and worse outcomes.

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A-191b

PHYSICAL ACTIVITY AND SMOKING PROGRESSION AMONG SMOKING ADOLESCENTS

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A growing body of research has identified a link between physical inactivity and cigarette smoking progression in adolescents, two behaviors associated with myriad negative health consequences. However, much less is known about how physical activity (PA) patterns predict smoking among adolescents already experimenting with cigarettes. We examined how the change in PA from baseline to 24 months predicted both the intensity (cigarettes/day) and frequency (days smoked/month) of smoking at 24 and 33 months among adolescents who reported smoking in the past month at baseline. Adolescents (N = 557; 57.5% female and 79.4% white) were 9th and 10th graders enrolled in a longitudinal study enriched for youth who had experimented with smoking. All measures in the present study were from self-report questionnaires. On average, youth smoked on 8.70 days in the past month (SD = 9.61) and at a rate of 2.02 cigarettes per day on days smoked (SD = 2.56). Standard regression analyses examined how the change in PA predicted smoking at 24 and 33 months, controlling for the respective baseline smoking outcome. We also controlled for baseline factors associated with both PA and smoking, including gender, race, depressive symptoms (CES-D), grade point average, and body mass index. We also controlled for baseline PA to adjust for initial levels of PA and baseline time in physical education to emphasize the effect of choice-based PA. Results revealed that a decline in PA over high school was associated with escalation in the intensity of smoking at both 24 and 33 months ($p < .05$). In contrast, change in PA was not a significant predictor of smoking frequency at either time. The effect of PA on smoking was similar across gender and race. Findings emphasize the benefits of PA and its role in prevention for adolescents already experimenting with cigarettes. However, given its lack of effect on smoking frequency, it appears that the role of PA throughout high school might be more of a harm-reduction strategy as opposed to a tool for cessation.

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A-202a

HEALTH-RELATED SELF-PROTECTION PREDICTS PSYCHOLOGICAL AND BIOLOGICAL BENEFITS AMONG LONELY OLDER ADULTS

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Feelings of loneliness can compromise a person's quality of life (Cacioppo et al, 2002; Heinrich & Gullone, 2006). Such adverse consequences of loneliness are likely to be especially pronounced in older adulthood (Hawkley & Cacioppo, 2007) when individuals are at heightened risk of experiencing increasing health threats (Baltes, Cornelius, & Nesselroade, 1979). Indeed, lonely older adults may find managing health-related threats particularly challenging, and the stress that ensues may contribute to patterns of biological dysregulation (e.g., cortisol disturbance or heightened systemic inflammation). However, theory and research also suggest that older adults can cope with health threats and prevent such problems if they engage in self-protective control strategies (Heckhausen, Wrosch, & Schulz, 2010; Wrosch, Miller, & Schulz, 2009). Examples of self-protective control strategies include positive reappraisals, where a person focuses on positive aspects of a problem, and the avoidance of self-blame for the occurrence of a health problem.

Given these considerations, we hypothesized that the adoption of self-protective strategies could prevent lonely older adults from exhibiting increasing levels of psychological stress, as well as alterations in cortisol output and elevated systemic inflammation (CRP). To test these hypotheses, we analyzed data from a 6-year longitudinal study of 122 older adults and compared psychological and biological outcomes among relatively lonely versus non-lonely participants.

In support of our hypotheses, among lonely participants, baseline self-protection was associated with an amelioration of 2-year increases in psychological stress and diurnal cortisol volume, and predicted lower CRP after 6 years. These associations were not found among non-lonely participants. In addition, the buffering effect of self-protection on 6-year levels of CRP among lonely older adults was statistically mediated by 2-year changes in cortisol volume.

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A-202b

CALLIGRAPHY TREATMENT OF PTSD CHILDREN IN CHINA: THE SALIVARY CORTISOL OUTCOMES

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Background: Chinese calligraphy therapy (Kao, 2011) facilitates cognitive functioning, calms down emotions and improves some clinical conditions of children with ADHD (Kao, Hu & Cheung, 2006) and autism (Kao, Hu & Wang, 2006). For a new application, we applied calligraphy treatment in PTSD children from the 2008 Sichuan earthquakes in China, and found the treatment group had a significant post- treatment decrease in CRIES-13 Total Scores as well as in Positive Scores (Zhu, et. al. 2010). The present experiment further investigated treatment-related salivary cortisol (SC).

Method: Eighty 4th and 5 th PTSD children who lived through 2008 Earthquakes participated. The experimental group had 41 children with a mean age of 10.52, and was given calligraphy training one hour per day for consecutive 30 days. The CRIES scale was adopted to assess the treatment effects before, at half-way and after the training course. The control group had 39 children with a mean age of 10.54 and was similarly assessed but without calligraphy training. Both groups also took the SC assessment.

Results: There was a steady SC decrease in the experimental group, but not in the control group. After calligraphy training, a significant post training SC decrease was noted in the 3rd SC sample for the experimental group (F= 21.69;P<0.05), while that for CRIES Positive Scores also decreased significantly in the post training sample (t=4.58; P< 0.05), but not in the control group.

Conclusions: These findings are highly encouraging, showing the effectiveness of calligraphy treatment of the PTSD children in terms of a decrease in both the CRIES scores and the salivary cortisol. This is significant that for first time, we found the effect of calligraphy training at a fundamental biochemical level of analysis.

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A-208a

CHANGES IN AVAILABILITY OF MEDICATIONS IN SUBSTANCE ABUSE TREATMENT PROGRAMS

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Background: There are multiple medications for the treatment of substance use disorders (SUDs), but publicly funded SUD treatment programs have slow to adopt these medications. Few studies have measured changes in the number of medications offered by SUD programs using longitudinal data. This translational research examined the relationships between organizational characteristics and changes in the number of SUD medications offered by a cohort of treatment programs. Methods: In 2004-2006, baseline data were collected via interviews with administrators of 318 SUD organizations. Follow-up data were collected from 250 of 291 programs still open in 2009-2010. Covariates measured at baseline included organizational characteristics, medical resources, funding, and treatment culture. Negative binomial regression was used to estimate the associations between organizational variables and the number of medications offered at follow-up, while controlling for the number of medications offered at baseline. Results: There was a significant increase in number of medications from 0.5 at baseline to 0.9 at follow-up (t=5.24, p<.001). After controlling for medication adoption at baseline, number of medications at follow-up was positively associated with offering residential/inpatient levels of care and greater employment of physicians (all p<.05). Treatment cultures that more strongly emphasized spirituality offered fewer medications (p<.05), after controlling for baseline medication adoption and other organizational characteristics. Conclusions: While these findings suggest there is still a research-to-practice gap regarding pharmacotherapy in SUD treatment, publicly funded SUD treatment programs increased their offering of medications over a five-year period. These data suggest that lack of physicians and cultural orientations toward treatment may continue to be barriers to the availability of these evidence-based treatment practices.

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Rapid Communications Poster Session B

Thursday, April 12, 2012
7:00 PM - 8:30 PM

B-034a

PREDICTORS OF HEALTH-RELATED QUALITY OF LIFE IN PATIENTS TREATED WITH AUTOLOGOUS AND ALLOGENEIC STEM CELL TRANSPLANTATION IN HEMATOLOGICAL MALIGNANCIES

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Background. Identifying factors that predict health-related quality of life following hematopoietic stem cell transplantation is important in estimating patients' ability to adjust to the consequences of their disease and treatment. As the studies that have been published on this subject are scattered, the present study aimed to systematically review prognostic factors for health-related quality of life after autologous and allogeneic stem cell transplantation in hematological malignancies.

Methods. A systematic, computerized search in Medline, EMBASE, PsycINFO, and the Cochrane Library was conducted from 2002 to June 2010. The methodological quality of the studies was assessed using an adaptation of Hayden's criteria list. Qualitative data synthesis was performed to determine the strength of the scientific evidence.

Results. Thirty-five studies fulfilled the selection criteria. Strong to moderate evidence was found for graft-versus-host disease, conditioning regimen, being female, younger age, receiving less social support and pre-transplant psychological distress as predictors of various aspects of health-related quality of life following hematopoietic stem cell transplantation.

Conclusion. The results of this review may help transplant teams in selecting patients at risk for experiencing a diminished health-related quality of life following hematopoietic stem cell transplantation. Follow-up treatment can be provided in order to promote quality of life.

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B-034b

PHYSICAL ACTIVITY, OBESITY, AND CANCER RISK: SOCIODEMOGRAPHIC, BEHAVIORAL, AND GEOGRAPHIC PATTERNS IN THE KNOWLEDGE OF RISK AND BEHAVIORS

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Obesity and sedentary behavior are known risk factors for a variety of chronic diseases. While associations between obesity and heart disease and between obesity and diabetes are well known, knowledge of associations between obesity, physical activity, and cancer may not be as widespread. Moreover, this knowledge may not be evenly distributed across the population. We analyzed data from the National Cancer Institute's Health Information National Trends Survey (HINTS, 2007) to describe current knowledge of healthy lifestyle behaviors and cancer risk in the adult U.S. population and to identify associated sociodemographic, behavioral, and geographic factors. To account for the complex survey design of HINTS, STATA 10, SVY module was used to calculate population estimates and confidence intervals in bivariable and multivariable analyses. Geographic Information System (GIS) isopleth maps were generated to examine and compare the geographic distributions of BMI and cancer risk knowledge. Results revealed considerable confusion in the population about cancer risk: 36.9% of the population believes exercise is unrelated to cancer risk; 67.6% agreed that "... it is hard to know what weight one should maintain to be healthy;" and 54.5% agreed that "everything causes cancer". Geographic trends in BMI and risk knowledge raise interesting questions about potential knowledge behavior associations. Associations between physical activity, obesity and cancer remain poorly understood among the general population. In the context of a growing body of research that presents individual cognitions as key factors in determining healthful behaviors, these results present an opportunity for potential interventions. Geographic disparities reveal important directions for future research.

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B-034c

EXAMINING PATIENT REPORTED EVALUATION OF THERAPEUTIC CARE DELAY AMONG LATINA- AND EUROPEAN-AMERICAN CERVICAL CANCER SURVIVORS

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Introduction: Severe delays, in cancer diagnostic or therapeutic care, approaching ≥60 days negatively affect survival and survivorship outcomes.

Purpose: Investigate therapeutic care delays among European- and Latina-American cervical cancer survivors (CCS).

Methods: 291 CCS (134 European-, 159 Latina-American) were recruited from the California Cancer and hospital registries.

Results: 69% of low-income and 48% lower-educated CCS reported severe therapeutic delays (≥60 days). Latina-Americans were more likely to endorse delays due to financial, doctor's delay, and healthcare system issues ($p<0.01$). In a logistic regression model, healthcare system delay significantly predicted severe therapeutic delay ($p<0.01$).

Conclusions: Delays stemming from the healthcare industry contribute to ethnic differences in access to appropriately-timed care observed in this study. Provider action influenced severe delay, yet remains largely unexplained and needs further investigation. Our findings suggest that clinicians and researchers must develop a fuller appreciation of the impact of provider action and systemic barriers on health outcomes. Moreover, governmental and private health systems must invest in building the required medical and procedural infrastructure to optimize appropriate implementation of healthcare programs to increase optimal program benefit especially within safety net programs to address health disparities and enhance timely care for all.

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B-034d

FACTORS ASSOCIATED WITH PATIENTS WITH ADVANCED STAGE CANCER AND THEIR PARTNERS "HOLDING BACK" IN CONVERSATIONS ABOUT CANCER

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Research has well documented the emotional, physical, and social distress experienced by cancer patients and their partners. In particular, communication constraint has been associated with poorer patient and partner well-being, but factors that predict couples' constraints in communicating with each other about cancer are not well-understood. The current analyses examined associations of patient and partner reports of communication constraint with reports of well-being, personal characteristics, illness characteristics, and relationship quality. Participants included 105 females with stage III (n=66) or IV (n=39) breast (n=44), gynecological (n=38), or lung (n=23) cancer and their spouses or unmarried partners (n=92). Patients were 24 to 83 years old (M=58.3, SD=11.1) and had been diagnosed for 1 to 158 months (M=16.1, SD=25.6); partners were 29 to 82 years old (M=60.1, SD=11.4). For both patients and partners, higher communication constraint was associated with higher levels of depression and anxiety (ps<.01), poorer self efficacy to manage cancer (ps<.01), and poorer relationship quality (ps<.02), supporting the need to understand predictors of this important variable. Patients and partners did not differ in levels of communication constraint (t(85)=1.36, p=.179), but did differ in the factors associated with constraint. Patients reported higher constraint when they were younger (r=-.321, p=.001), in shorter relationships (r=-.324, p=.001), had lower incomes (r=-.226, p=.039), and perceived poorer health (r=-.225, p=.025). The only partner characteristic associated with higher constraint was being non-Caucasian (t(89)=-2.285, p=.025). Neither patient nor partner report of communication constraint was associated with documented disease status (e.g., cancer stage; ps>.20). Findings highlight the importance of understanding factors associated with communication constraint about cancer and demonstrate the need for future research examining causal relationships between constraint and well-being.

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B-034e

COMPARING COMPLETION AND FACTORS INFLUENCING PAP-TESTING AMONG AFRICAN- AND LATINA-AMERICANS IN TWO REGIONS WITH HIGH CERVICAL CANCER INCIDENCE

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Objective: To compare the PAP-test rates for national, State and two California regions with high cervical cancer (CCA) incidence; and examine the relationship of demographic, language, number of sexual partners and condom use on self-reported PAP test in a sample of African- and Latina-American women.

Methods: Participants were recruited within Southern California using mixed-method sampling strategy.

Results: Increased PAP testing was associated with having health insurance coverage (p=0.037), number of sex partners (p=0.013), and greater condom use (p=0.009). EP Latina-Americans (80%) were more likely to have PAP-testing compared to LEP Latina-Americans (73%) and African-Americans (70%); though these PAP-testing rates are not statistically significant. Our study population reported screening rates significantly lower compared to their regional, State and National data (p<0.05).

Conclusion: This study highlights the need for PAP-testing interventions that are responsive to cultural and health-behavior factors. LEP Latinas lacked information and African-American seem to have lower risk perceptions. Our study sample's PAP testing rates comparing the two target regions in the past ten years clearly deviates from the population norm. Furthermore, using local data can make important contributions to identify cancer risk and inform community responsive interventions for targeted and effective cancer prevention and control at the local level.

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B-034f

SUBGROUP DIFFERENCES IN HEALTH-RELATED QUALITY OF LIFE AMONG ASIAN-AMERICAN BREAST CANCER SURVIVORS: A PROSPECTIVE STUDY

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Survivorship research is of growing importance yet Asian-Americans remain understudied. This study examined the predictors of change in health-related quality of life (HRQOL) among Asian-American breast cancer survivors (BCS). We employed a prospective cohort design with BCS recruited from hospitals and community organizations. Participants included 116 BCS: 73 (63%) Chinese-, 25(21%) Korean-, and 18(16%) Filipina-Americans who were 1-3 years post-diagnosis. Filipina-Americans reported the most favorable HRQOL, while Chinese-Americans endorsed moderated HRQOL and Korean-Americans expressed poor HRQOL (p<0.001). Asian-American subgroup differences in predicting HRQOL were noted with no remarkable change in HRQOL over 1-year. The regression models showed that income, native-language, headache, distress level, change in co-morbidity, change in distress, and change in general health perception explained 64% of variance in change in HRQOL. Regression analyses demonstrated change in socio-ecological factors in conjunction with medical-characteristics dictates change in HRQOL outcomes. Hence, studies with larger samples are necessary to understand and address the survivorship needs of our diverse and increasing Asian-American population.

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B-034g

SOCIAL COGNITION AND HEALTH BEHAVIOR IN HIGH-RISK CANCER SURVIVORS

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Few studies have assessed the relationship between social cognition domains and health behavior change in high-risk colorectal cancer (CRC) survivors from families with hereditary cancer syndromes. We explored associations among social cognitive variables (self-efficacy [SE], outcome expectancy [OE] and self-regulation [SR]) and between these variables and post-diagnosis health behaviors (diet and physical activity [PA]) in 20 high-risk CRC survivors. Social cognitive variables were strongly correlated with one another and SCT ratings were overall very high. SE for managing a cancer diagnosis/treatment was significantly ($p<.05$) correlated with diet and PA SE ($r=.62$), SR for a cancer diagnosis/treatment ($r=.79$), and positive OE regarding a cancer diagnosis/treatment ($r=.86$), diet ($r=.81$), and PA ($r=.71$). SR for managing a cancer diagnosis/treatment was correlated with all three positive OE measures (cancer diagnosis/treatment [$r=.90$], diet [$r=.62$], and PA [$r=.66$]). Significant positive correlations were also found between diet and PA SE and SE for medical care ($r=.56$), PA SR ($r=.49$), and positive OE regarding an individual's cancer diagnosis/treatment ($r=.73$). The positive associations among social cognitive variables identified in this sample of high-risk CRC survivors are consistent with the relationships among social cognitive variables in other cancer survivor populations and non-cancer adult samples. Greater mastery in one social cognitive domain correlates to experience of greater mastery in other domains. In contrast to prior work, social cognitive variables were unrelated to changes in PA or consumption of a healthful diet post-diagnosis in this high-risk sample. Results have implications for intervention development based on SCT to improve high-risk CRC survivors' post-treatment health and medical care management. Due to the hereditary nature of their disease, high-risk survivors may regard lifestyle changes as less important to their CRC disease risk. Future work can explore how to improve healthful diet and PA in this population to reduce lifestyle risks related to other diseases.

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B-034h

LIVEABLE: AN ONLINE HEALTH PROMOTION PROGRAM FOR CANCER SURVIVORS WITH PRIOR DISABLING CONDITIONS

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Introduction: Despite ample health information on the Internet, locating good health promotion information for those with chronic conditions is challenging. To increase the efficiency of information dissemination and empower healthy behaviors, a feasibility study of an on-line health promotion intervention for cancer survivors with prior disabling conditions was conducted.

Methods: Eleven cancer survivors who participated in an earlier health promotion survey were recruited for the pilot. The LiveAble program included exercise, nutrition, emotions, and communication with health care providers. Based on Stuifbergen's theoretically based interventions for people with chronic conditions, it incorporated the voices of those who participated in the previous health promotion survey. The most recent evidence based information from organizations such as the National Coalition for Cancer Survivorship and U.S. Department of Agriculture was also incorporated.

Results: Out of 23 people who agreed to participate initially, only 11 completed the modules and final evaluation survey. They were 55 years old on average, and most were highly educated. Participants were most likely to report increases in their stress management and exercise abilities. Ninety percent of the participants reported the modules covered useful content and it was relevant to the disabling conditions. Eighty percent of the participants agreed that the directions were easy to follow and held their attention. However, three people mentioned that they had difficulty navigating through the modules.

Discussion: While initial response to LiveAble was positive, the feasibility pilot identified areas for improvement. Utilizing telephone communications might be needed to assist those with certain disabilities in using the program most effectively. Overall, the quality of the information and the resources were judged helpful, but a more friendly computer environment could make the intervention even more impactful.

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B-034i

THE IMPACT OF DEPRESSIVE SYMPTOMS ON PROSTATE CANCER SCREENING AND PERCEPTIONS IN A VETERAN SAMPLE

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Research suggests depression is associated with lower rates of preventive health behaviors, including screening for breast, colorectal, and cervical cancer. However, the relationship between depressive symptoms and prostate cancer screening has been largely unexplored, even in high-risk populations, such as veterans. Using the Health Belief Model as a framework, this study examined the impact of depressive symptoms on prostate cancer screening and perceptions, health literacy, and healthcare interactions in a veteran sample. A total of 461 men were recruited; of those, 405 (87.9%) were eligible for participation ($M=60.3$ yrs, range=41-89). Results indicated that men who never had a digital rectal exam reported significantly higher PHQ-8 scores ($M=15.9\pm8.4$) than those who had ($M=11.3\pm8.0$; $t[325]=2.41$, $p=.02$). Similarly, men who never had a prostate specific antigen test reported higher PHQ-8 scores ($M=15.3\pm8.4$) than those who had ($M=11.0\pm7.8$; $t[284]=3.06$, $p=.002$). Hierarchical linear regression analyses indicated that the PHQ-8 was a significant predictor of perceived barriers to prostate cancer screening after accounting for demographics and indicators of access to medical care ($\beta=.20$, $t=3.3$, $p=.001$). Additional regression analyses indicated that the PHQ-8 was a significant predictor of health literacy, self-efficacy for medical interactions, and trust in physician, even after accounting for demographics and indicators of access to medical care. These findings support the hypothesis that symptoms of depression interfere with receipt of cancer screening tests and influence perceived barriers for future testing. These results also indicate that depressive symptoms negatively impact health literacy and healthcare interactions, findings which have broad implications for health and disease management. To improve the rate of preventive health behaviors and active participation in healthcare, methods of identifying and treating depressive symptoms in at-risk veterans will be discussed.

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B-034j

THE IMPACT OF COMORBIDITY ON SURGICAL SIDE EFFECTS AND QOL OVER TIME AMONG BREAST CANCER SURVIVORS

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BACKGROUND: Breast cancer patients report significant upper body morbidity following surgical treatment. Although this increased morbidity is associated with lower quality of life (QOL), it is unclear how comorbidity may impact side effects from treatment and QOL over time.

METHOD: Surveys were administered by telephone at one (T1) and two (T2) years post-diagnosis to 1019 breast-cancer survivors from the Missouri cancer registry. All measures were self-report and included a surgical side effects (SSE) score (5 items; limited arm mobility/frozen shoulder, tightness/tenderness in chest wall, tightness/tenderness/discomfort in breast, arm weakness, and lymphedema of the arm), Katz's measure of comorbidity, and 8 RAND-36 QOL subscales. T1 Covariates included socio-demographic, access to care, psychosocial, clinical, and behavioral factors. Using a structural equation modeling approach, we examined the effect of comorbidity and SSE on changes in 8 QOL domains. We controlled for the inter-correlations between variables at the same timepoint and for covariates on all outcomes.

RESULTS: T2 measures were regressed on T1 SSE and QOL to assess change over time while controlling for covariates; all paths were statistically significant. T1 SSE was related to lower T2 physical functioning, general health, emotional well-being, and higher physical limitations, fatigue, pain. T1 Comorbidity was related to lower T2 physical functioning, emotional well-being, social well-being, general health, and higher physical limitations, emotional limitations, pain. SSE was associated with comorbidity at T1 (r =.17, p<.001) but not at T2. The model provided good fit to the data; $\chi2(64)=178.01$, p<.001, CFI=.99, RMSEA=.042 (.035-.049).

CONCLUSIONS: Comorbidity is associated with more severe surgical side effects and poorer QOL among female breast cancer survivors. The long-term impact of comorbidity on treatment side effects and QOL warrants greater consideration in the ongoing medical care of these survivors.

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B-034k

DEPRESSION IN SPOUSAL CAREGIVERS OF HEMATOPOIETIC CELL TRANSPLANT (HCT) RECIPIENTS: WHO IS MOST AT RISK?

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Lay caregivers, usually spouses, are essential members of the treatment team for HCT recipients. After HCT, spousal caregivers report lower marital satisfaction and social support than age-matched controls, and more responsibilities than before HCT. Depression, common among HCT spousal caregivers, has been thoroughly investigated 2-20 years post-HCT, but little is known about the years prior. Thus, the purpose of this cross-sectional online study was to identify predictors of depression in spousal caregivers two weeks to two years post-HCT. Participants were 138 primarily female (80%), white (94%), middle aged (M = 52 years), well educated (M = 16 years) caregivers of mostly allogeneic (54%) HCT recipients. Clinically significant depression (PHQ-9) was reported by 25.1% and suicidal ideation by 9.4%. We hierarchically regressed depression onto demographic variables in the first block, medical variables including caregiver health related quality of life (HRQOL) in the second block; and caregiving demand, self-efficacy for caregiving tasks, marital satisfaction and social support in the third block. This model (adjusted R2 = .38, p < .001) suggests caregivers with higher levels of depression are those with lower education (β = -.17, p < .05), poorer HRQOL (β = -.20, p < .05), poorer HCT recipient health status (β = .32, p < .001) and lower social support (β = -.25, p < .01). Exploratory analyses indicated social support fully mediated the relationships between depression and both caregiving demand (z = 2.72, p < .01) and marital satisfaction (z = -3.23, p < .001). The alarming rates of depression and suicidal ideation in this study clearly indicate the mental health and well-being of HCT caregivers is a concern in its own right. As preliminary evidence has also suggested the well-being of caregivers affects the physical well-being of HCT recipients, these results call for increased vigilance by healthcare professionals for depressive symptoms in and greater mobilization of mental health services for this at-risk population.

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B-034l

ERYTHEMA AND ULTRAVIOLET INDOOR TANNING: FINDINGS FROM A DIARY STUDY

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Background: The use of artificial ultraviolet indoor tanning (IT) beds has been show to increase the risk of skin cancer. The IT industry claims the use of IT devices for tanning represents a healthy alternative to sun exposure as users have greater control over the duration and amount of UV exposure thus reducing their risk of sunburns (i.e., skin erythema). The current study sought to better understand the prevalence and predictors of IT-related erythema with diary data. Diary data are valuable for understanding temporal relationships, establishing evidence for causal relationships, and determining the IT session-specific and IT-user characteristics related to erythema.

Methods: Six bi-monthly diary surveys were administered to a sample of 198 female college students who reported IT use in the past year. Diaries assessed IT use, use of protective behaviors, and IT-related erythema.

Results: The relationship between erythema experienced from IT and both session- and individual-level factors was examined. Among participants who used IT one or more times during the 12-week assessment period, 66% experienced at least 1 episode of erythema. Among the 1,492 IT sessions reported by participants during the study, nearly 1 in 5 sessions resulted in skin erythema. A high amount of previous IT use was related to a reduced risk of erythema in the 12-week study period and perceived susceptibility to burns from IT use was positively associated with erythema.

Conclusion: Erythema was a frequently reported experience. These findings are of concern given that the experience of UV-induced erythema before the age of 30 significantly increases melanoma risk. The findings contradict the IT industry's assertion that use of IT devices results in minimal risk of erythema. IT interventions should highlight the risks of acute skin reactions to IT.

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B-034m
FOCUSING EFFECTS IN ASSESSING THE IMPACT OF CHILDHOOD CANCER

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Background: Studies examining posttraumatic stress (PTSS) in pediatric cancer may create a focusing effect by specifying cancer as the target event and basis for survey questions. We present an alternative approach which seeks to avoid potential focusing effects and allows for appropriate cancer-control comparisons. Method. Children with cancer and their parents, and a community control sample matched on age, gender, race and SES are assessed with diagnostic interviews, measures of PTSS and related outcomes. Patients are not oriented to cancer but freely identify what they feel is their most traumatic event. However, for patients that do not identify a cancer-related event, when other study procedures are complete, they are focused on their cancer and complete PTSS measures a second time with cancer specified as the target event. Results. To date, we have evaluated 397 participants (288 cancer, 109 matched control). Patients identified a cancer-related event as their most traumatic event 53% of the time. However this differs based on time elapsed since diagnosis, with patients > 5 years from diagnosis identifying a cancer-related trauma only 24% of the time. Parents reported their child's cancer as their most stressful event 77% of the time (but only 57% for those > 5 years from diagnosis). Both patient and parent reported PTSS is significantly higher for non-cancer-related events. For patients, there is no cancer-control difference when they report on their most stressful event, but when reporting on a cancer-related event, patients report significantly lower PTSS than controls ($p < .01$, $d = .36$). Parents of children with cancer report significantly more PTSS than controls when reporting on their most stressful event ($P <.01$, $d = .29$), but this difference is no longer significant when they report on a cancer-related event. Conclusion. PTSS outcomes differ based on methodology and whether or not patients are instructed to focus on cancer.

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B-034n
TRANSMISSION OF POSITIVE AND NEGATIVE EMOTIONS BETWEEN BREAST CANCER PATIENTS AND THEIR SPOUSES

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Although mortality rates have improved, diagnosis and treatment of breast cancer can be very stressful for patients as well as loved ones. Because both patients and their spouses are affected by this disease, breast cancer is regarded as a shared experience. Partners in a romantic relationship typically exhibit interdependence whereby the thoughts and feelings of one partner influence those of the other. Little is known about how breast cancer patients and their spouses may transmit their emotional experiences to each other while coping with this major life stressor. The present study seeks to examine transmission of basic emotions (sadness, fear, anger, joviality) from one partner to the other over the course of a day. Previous research suggests that the spouse's emotions have an influence on those of the patient. Because the time following surgery is disruptive for both patients and their spouses, we hypothesize that the direction of emotion transmission can also flow from patient to spouse. Fifty female breast cancer patients and their spouses completed daily diaries for ten consecutive days soon after surgery, rating their momentary emotions at both morning and evening. Multilevel dyadic analyses revealed the following emotion transmission effects: increased patient morning sadness predicted decreased spouse evening sadness ($B = -.051$, $p = .05$); increases in both spouse and patient morning fear predicted decreases in their partner's evening fear ($B = -0.15$, $p < .05$); increases in spouse anger predicted increased patient evening anger ($B = 0.04$, $p < .05$); and increased patient morning joviality predicted increased spouse evening joviality ($B = 0.04$, $p < .05$). Overall, these results indicate that emotion transmission for positive and negative emotions is more complex than previously considered and provide insight into shared emotional processes that occur as couples cope with the cancer experience.

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B-034o
DETERMINING THE FEASIBILITY AND EFFECTS OF A COMMUNICATION SKILLS INTERVENTION FOR PHYSICIAN ASSISTANTS (PAS) IN ONCOLOGY

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PAs often play a large role in the delivery of patient care. They are an extension of the physician and provide medical care and, especially in oncology, often participate in "high stakes" conversations. Having appropriate communication skills has shown to positively impact patient outcomes. However, few PAs receive any formal training in communication skills. We conducted a pilot randomized trial of a workshop based communication skills intervention for PAs. The intervention used a small group format and consisted of teaching skills for breaking bad news and identifying and responding empathically to patients' emotions. Participants were 14 PAs working in oncology (mean age = 38.8; 88% female) randomized to the communication skills workshop group or a control group (information about a communication skills website). PAs interviewed standardized patient actors who were portraying patients who presented with disease recurrence (baseline) or ending of curative treatment (1 month follow up). Communication skills examined were setting up the interview, assessing patient's perception, obtaining patient's invitation, giving information, addressing patient's emotions by using supportive statements, and presenting and sharing treatment options. Separate linear regression analyses that controlled for baseline levels of the dependent variable demonstrated that PAs in the communication skills group evidenced greater use of setting up the interview (F[2, 11] = 4.54, p < .05) and use of supportive statements (F[2, 11] = 5.53, p < .05), and less use of lecturing (F[2, 11] = 4.68, p < .05) than PAs in the control group at 1 month. Results suggest that the intervention enhanced PAs communication skills in key areas. Future analyses will examine effects of the intervention on psychosocial variables including empathy and self-efficacy as well as the effect in interactions with cancer patients in their usual settings.

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B-034p

HEPATITIS B SCREENING PRACTICE AMONG OLDER CHINESE IN THE GREATER WASHINGTON DC AREA

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Background: Chronic hepatitis B virus (HBV) infection is one of the most common causes of liver cancer among Chinese Americans (CAs). HBV screening helps find the infection status and identify appropriate treatment, however, the screening rate remains low among CAs. Older CAs are particularly at greater risk as they were born before the universal childhood vaccination policy was effectively implemented in their home country. There has been very limited number of studies that examined HBV screening practice of older CAs. Objective: This study examined prevalence of hepatitis B screening, test result, and influence of HBV knowledge and cultural beliefs among older CAs. Methods: 252 CAs 50 years and older were recruited from Chinese speaking physician's offices in the Greater Washington DC area. We conducted descriptive statics analyses and multiple logistic regressions. Results: 65.1% of the participants reported that they had hepatitis B screening. Among the screened, 66% were susceptible, 20% had immunity due to vaccination, 8% had immunity due to previous infection, and 3% were chronically infected. Participant's HBV knowledge was low, (mean 5.6, Range: 0~11). Those who completed the screening had higher knowledge (OR: 1.27, p<0.01), had less self-care belief (OR:0.63, p<0.01), were a college graduate (OR:2.1, p<0.05), and lived in U.S. less than 20 years (OR: 0.49, p<0,05). Commonly reported motivating factors for screening were physician's recommendation (33%), work requirement (14%) and immigration requirement (13%). Conclusion: HBV screening rate was higher among our study participants than the rate estimated with the CAs recruited in community setting. However, high infection and susceptible rates were concerning. Future intervention should improve older CAs' HBV knowledge and account for a strong self-care belief. Culturally sensitive physician-based intervention would be an effective way to counteract CA's barriers.

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B-034q

INCREASING CANCER TREATMENT COMPLIANCE IN NEWLY DIAGNOSED AFRICAN AMERICANS

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Background: African Americans are more likely to be diagnosed with advanced cancer than whites, and are more likely to refuse or delay treatment for a variety of reasons. There is also evidence that African Americans are less likely to comply with prescribed treatment regimens. Our institution developed a multidisciplinary approach to address this problem. The primary goal of this effort was to increase treatment compliance in African Americans newly diagnosed with cancer by identifying and reducing barriers to care.

Methods: A chart review was conducted on all newly diagnosed African American cancer patients who were treated during the 2 years prior to the implementation of this effort to determine baseline treatment compliance. Three components were then developed that form the core of this effort. A dedicated social worker and unique phone number were assigned to facilitate the process and to bridge psychosocial barriers to care. A patient navigator role was implemented to provide support to all African American patients and families during clinic visits and through regular telephone follow-up. In collaboration with Information Systems, a process was initiated to ensure screening of all newly diagnosed African American patients, and to develop a database to house demographic information, barriers to care, comorbid conditions, and follow-up correspondence.

Results: Ninety percent of all new African American patients presenting at our institution utilized the services over a two year period. During this time, treatment compliance went from 70% to 98%. The most commonly identified barriers to care were inadequate health insurance and lack of transportation. Thirty percent of the patients accepted the services of our navigator.

Conclusion: Through a multidisciplinary approach, compliance to treatment was improved in African Americans who were newly diagnosed with cancer. Our targeted efforts also resulted in the reduction of barriers to care in these individuals.

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B-034r

COMMUNITY LIBRARIANS AS PARTNERS

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Background: The mission of the public library is to serve the community, including underserved individuals. Librarians are skilled professionals who serve as key resources in many communities, particularly during tough economic times. Librarians increasingly serve as a source of information for a wide variety of subjects, including health. Community members often use their local community library for information, internet access and socialization. Public libraries help remove existing barriers to online information access. Libraries also serve as meeting places for community organizations. A recent Harris poll revealed that 65% of U.S. adults visited the library in the past year.

The primary purpose of this endeavor was to determine if a pilot group of librarians located in underserved areas had an interest in increasing their knowledge about cancer risk reduction and screening. A secondary purpose was to explore the use of neighborhood libraries as venues for outreach activities aimed at promoting knowledge about cancer risk reduction and screening.

Methods: Relationships were developed with a network of community librarians, in urban lower and middle-class neighborhoods. Collaboratively, topics were identified and educational sessions were conducted in the form of group lecture and 1:1 education. Topics were breast cancer, skin cancer, environmental risks, cancer survivorship, and healthy lifestyle. Written materials and speakers' contact information were left at the libraries to extend the reach to a larger audience.

Results: Nine programs were held in 5 libraries over a thirteen month period. Average attendance was 12 individuals. This effort provided an opportunity to create relationships with the librarians and community members. During the second year, demographic data and information about screening behaviors and barriers to cancer screening from program attendees will be collected.

Conclusions: Partnerships with community librarians, in underserved areas may be an avenue for spreading the message about cancer risk reduction, screening, and healthy lifestyle.

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B-049a

HEALTH-RELATED QUALITY OF LIFE PREDICTORS FOR READMISSION IN CARDIAC PATIENTS

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Background: Hospital readmission rates for cardiovascular disease (CVD) are high and costly, and have become a contentious public policy issue. Existing risk models predicting readmission risk perform poorly. Recent data suggest that incorporating health-related quality of life (HRQoL) may improve predictive performance. Our group has previously found an association between composite EQ-5D value and readmission risk for patients discharged after acute CVD hospitalization. The aim of this study was to investigate which components of EQ-5D explain this previously observed association. Method: EQ-5D was given to 664 patients (34% heart failure, 9% myocardial infarction, 27% cardiac surgery, 30% other) entering a telemonitoring transitional care program. Associations between each EQ-5D question and time to readmission were evaluated using Cox proportional hazard models, adjusting for potential confounders. Responses were compared between patients endorsing no problems and those endorsing moderate and severe problems. Results: After controlling for age, gender, type of admission (surgical versus medical), illness severity, and insurance type, problems with self-care (HR = 1.50, 95% CI: 1.08-2.07) and usual activities (HR = 1.75, 95%CI: 1.08-2.84) were associated with higher all-cause readmission risk. We found an interaction between anxiety/depression and surgical status (p = .04). Endorsement of anxiety/depression was associated with higher readmission in patients hospitalized for surgical reasons (HR = 1.90, 95% CI: 1.18-3.05). Conclusions: EQ-5D components addressing self-care, usual activities, and anxiety/depression drive the association between HRQoL and readmission risk. Further research is needed to determine if interventions targeting these factors can reduce morbidity, readmission, and resulting cost.

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B-049b

CARDIOVASCULAR REACTIVITY TO ANGER RECALL PREDICTS HEALTHCARE UTILIZATION IN AFRICAN AMERICANS WITH SICKLE CELL DISEASE

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Previously, we showed that high perceived discrimination and high optimism predicted greater healthcare utilization in African American (AA) Sickle Cell Disease (SCD) patients (Stanton et al., 2010). Within this sample, we hypothesized that increased cardiovascular (CV) reactivity to anger recall (AR) stress might lead to greater health care utilization. Methods: 49 AA SCD patients reported past year healthcare utilization and completed an AR task while monitoring CV reactivity and recovery. Adjusted for age, sex, and baseline blood pressure, multiple regression analyses tested effects of CVR on the number of emergency dept (ED) visits and number and duration of hospitalizations (HOSPS) over the past year. Results: Higher baseline DBP predicted more hospitalizations (b=.03, p=.053) and increased length of hospitalization (b=.15, p=.028). In contrast, greater SBP reactivity trended toward predicting fewer ED visits (b=-.02, p=.079) and fewer HOSPs (b=-.02, p=.089). Similarly, slower HR recovery predicted fewer ED visits (b=-.04, p=.025) and fewer HOSPs (b=-.04, p=.012). Conclusions: These findings suggest that in SCD lower resting blood pressure, and greater CV reactivity and slower recovery are associated with lower health care utilization. Unlike in normal African-Americans for whom greater reactivity and faster recovery are markers of poor health, in SCD patients these may be predictive of better health. High baseline DBP may present similar risks in both normal and SCD samples.

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B-049c

PERCEIVED DISCRIMINATION AND OPTIMISM PREDICT CARDIOVASCULAR REACTIVITY TO ANGER RECALL IN AFRICAN AMERICANS WITH SICKLE CELL DISEASE

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High optimism (OPT) enhances effects of perceived discrimination (PD) on cardiovascular (CV) reactivity to anger recall (AR) in healthy

African-Americans (AA) (Richman et al., 2007). We seek in this study to determine if this effect could be replicated in AAs with Sickle Cell Disease (SCD). Methods: 49 AA SCD patients completed measures of PD and OPT and completed an AR task with monitoring of CV reactivity. Adjusted for age, sex, and baseline blood pressure, multiple regression analyses tested effects of median-dichotomized OPT/PD factors on CV reactivity and recovery. Results: A PDxOPT interaction predicted MAP reactivity (b=-12.54, p=.01) and DBP recovery (b=18.55, p=.024) such that those with low PD/high OPT had the greatest MAP reactivity and those with high PD/low OPT had the lowest DBP recovery. Greater OPT predicted greater MAP recovery (b=-7.97, p=.041) and greater HR reactivity (b=-4.34, p=.037). Conclusions: Contrary to expectations, SCD patients with low PD and high OPT demonstrated the greatest reactivity whereas those with high PD and low OPT demonstrated quicker recovery. Likewise, OPT was associated with longer recovery and greater reactivity regardless of PD level. Typically, slower recovery and greater reactivity are recognized as risk factors for CVD among normals; it is possible that these factors indicate adaptive biobehavioral coping in SCD. Since SCD patients may have lower CV reactivity overall compared to normal participants, greater reactivity and recovery may reflect greater health among these patients.

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B-049d

A WEB-BASED APPROACH TO BLOOD DONOR PREPARATION

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BACKGROUND: Written and video approaches to donor education have been shown to enhance donation attitudes and intentions to give blood, particularly when the information provides specific suggestions for coping with donation-related concerns. The present study extends this work by comparing web-based approaches to donor preparation among donors and non-donors.

STUDY DESIGN AND METHODS: Young adults [62% female; Mean (SD) Age = 19.3 (1.5); Mean (Range) Prior Blood Donations = 1.1 (0-26)] were randomly assigned to view (1) a study web site designed to address common blood donor concerns and suggesting specific coping strategies (n = 238), (2) a standard blood center web site (n = 233), or (3) a control web site where participants viewed videos of their choice (n = 202). Measures of donation attitudes, anxiety, confidence, and intentions were completed before and after the intervention.

RESULTS: For non-donors, the study web site produced more positive changes in donation attitudes, confidence, and intentions relative to both the standard and control web sites. For donors, the study web site produced more positive changes in donation confidence relative to both the standard and control web sites, but only differed significantly from the control web site for donation attitudes and intentions. Across all participants, the study web site significantly reduced donation anxiety relative to the control web site, but these reductions did not differ from those observed in the standard web site condition.

CONCLUSION: Web-based donor preparation materials significantly reduce anxiety and enhance blood donation attitudes, confidence, and intentions among donors and non-donors alike.

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B-049e

LOW OCCUPATIONAL STATUS WORKERS MORE VULNERABLE TO THE EFFECT OF JOB STRAIN ON AMBULATORY BLOOD PRESSURE AT WORK AND AT HOME

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Effects of job strain on cardiovascular disease (CVD) morbidity and mortality may be strongest amongst blue-collar workers, which may partially explain socioeconomic disparities in CVD risk. Results of studies examining SES differences in the relationship between job strain and ambulatory blood pressure (ABP), however are mixed, attributable perhaps to use of relatively brief sampling intervals. We examined the relationship between job strain (Karasek Job Content Questionnaire) and ABP over 3 working days and 1 nonworking day (hourly BP readings during waking hours) in 445 healthy white and black female and male workers (mean age = 43 ± 7; 53% female, 17% African American). Job strain was operationalized as high Psychological Demand (> sample median) combined with low Decision Latitude (< sample median). Using hierarchical linear modeling and adjusting for demographic and time-varying covariates (e.g., reported physical activity), we found a significant interaction between occupation type and job strain on systolic and diastolic ABP at work (t(438) = -3.61, p < .05 and t(438) = -2.84, p < .05) and at home on a nonworking day (t(427) = -4.23, p < .05 and t(427) = -3.48, p < .01), effects that were not apparent with standard BP measurement in the clinic. Follow-up analyses indicated that the association between job strain and ABP was significantly stronger among workers in blue-collar, sales, or office support jobs compared to white-collar workers at work (systolic estimate = 5.22 (2.69 SE); diastolic estimate = 3.46 (1.84 SE)) and at home on a nonworking day (systolic estimate = 6.03 (2.84 SE); diastolic estimate = 5.50 (1.93 SE)). These effects did not differ significantly as a function of gender. Appraised job strain might affect ABP to a greater extent among low SES individuals. These results extend previous findings to a male and female sample and a several day period involving working and nonworking days. These findings have implications for tailoring job stress interventions by occupation to reduce health disparities.

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B-049f

METABOLIC AND CARDIOVASCULAR ADJUSTMENTS DURING PSYCHOLOGICAL STRESS AND CAROTID ARTERY INTIMA-MEDIA THICKNESS IN YOUTH

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Cardiovascular (CV) reactivity is associated with carotid artery intima-media thickness (CIMT) and a greater risk for CV disease as early as childhood. Excess CV responses relative to the metabolic demand during psychological stress have been proposed as a mechanism for this association. However, it is not known whether excess CV responses in relation to the metabolic demand correlate with CIMT, similarly to traditional measures of CV reactivity. Purpose: To determine whether acute psychological stress results in excess CV responses relative to concurrent levels of metabolic demand in adolescents and to determine whether this excess response was associated with CIMT. Methods: Fifty-four adolescents, ages 13-16 years completed a graded exercise test on one day and measures of psychological stress reactivity (star tracing, speech preparation, speech) on another day. Heart rate (HR), systolic blood pressure (SBP), and oxygen (O2) consumption were measured on both days. On a third visit adolescents completed an ultrasound scan to measure CIMT. Results: Predicted HR and SBP values during the psychological stress tasks were calculated based on HR-O2 and SBP-O2 relationships determined during a graded exercise test. At a given O2 consumption, actual HR ($p<0.02$) and actual SBP ($p<0.001$) were greater than predicted values for all stress tasks. Traditionally measured SBP reactivity ($\beta=0.30$, $p=0.02$, R2 increase=0.09) and excess SBP ($\beta=0.30$, $p=0.02$, R2 increase=0.08) while preparing a speech were associated with greater CIMT when controlling for demographic characteristics, fitness, and baseline SBP. Conclusions: This was the first study to demonstrate that CV responses were in excess of what would be expected based on metabolic demand in youth. This study adds to the growing body of literature showing a link between SBP reactivity to acute psychological stress and CIMT in youth. The results further add to the literature by demonstrating that excess SBP is also associated with CIMT.

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B-049g

BODY MASS INDEX FOLLOWING NATURAL MENOPAUSE AND HYSTERECTOMY WITH AND WITHOUT BILATERAL OOPHORECTOMY IN SWAN

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Objective: Natural and surgical menopause are associated with increased risk for cardiovascular disease, possibly through the accelerated development of cardiovascular risk factors. We used prospective data to examine whether body mass index (BMI) changed differentially following hysterectomy with and without bilateral oophorectomy compared to natural menopause.

Methods: Using data from the Study of Women's Health Across the Nation (SWAN) (n=1,979), BMI was assessed annually for up to 10 years. Piecewise linear mixed growth models were used to relate natural menopause, hysterectomy with ovarian conservation, and hysterectomy with bilateral oophorectomy to trajectories of BMI before and after the final menstrual period (FMP) or surgery. Covariates included education, race/ethnicity, menopausal status and age the visit prior to FMP or surgery, physical activity, self-rated health, hormone therapy use, and antidepressant use.

Results: By visit 10, 1,793 (90.6%) women reached natural menopause, 109 (5.5%) reported hysterectomy with bilateral oophorectomy, and 77 (3.9%) reported hysterectomy with ovarian conservation. In fully adjusted models, BMI increased for all women from baseline to FMP or surgery (annual rate of change=.19 kg/m2 per year), with no significant differences in BMI change between groups. BMI also increased for all women following FMP, but increased more rapidly in women following hysterectomy with bilateral oophorectomy (annual rate of change=.21 kg/m2 per year) than following natural menopause (annual rate of change=.08 kg/m2 per year, $p=.03$).

Conclusion: In this prospective examination, hysterectomy with bilateral oophorectomy was associated with greater increases in BMI in the years following surgery than following hysterectomy with ovarian conservation or natural menopause. This suggests that bilateral oophorectomy leads to accelerated weight gain and may lead to greater risk for obesity-related chronic diseases, despite use of hormone therapy.

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B-059a

FEELINGS OF VULNERABILITY, NOT RISK PERCEPTIONS, PREDICT EXERCISE INTENTIONS IN PEOPLE WITH TYPE 2 DIABETES

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Type 2 diabetes mellitus (T2DM) accounts for over 90% of diabetes cases and more than doubles risk for heart disease. Lack of exercise is a risk factor for developing T2DM, as well as developing heart disease among those with established T2DM. Feeling at risk for these outcomes may motivate exercise behavior. Recent evidence suggests that affective responses to risk, such as feelings of vulnerability, are better predictors of health intentions and behavior than deliberative risk perceptions. This study investigated how feelings of vulnerability (FOV) and risk perceptions about heart disease predicted exercise intentions among people with T2DM. Adults with T2DM (N = 83) reported absolute, comparative, and conditional (on changing exercise behavior) risk perceptions, FOV, and exercise intentions. Measures of FOV assessed how worried, anxious, fearful, and concerned participants were about developing heart disease. Regression models examined the predictive validity of risk perceptions and FOV on exercise intentions. When including all three measures of risk perception, FOV, but not risk perception, were significantly positively related to intentions ($\beta = .371$, $p = .005$). Separate regressions using each measure of risk perceptions confirmed that higher FOV were related to higher exercise intentions when using absolute ($\beta = .536$, $p < .001$) or comparative risk perceptions ($\beta = .588$, $p < .001$). Significant interactions between FOV and comparative ($p = .02$) and conditional risk perception ($p = .03$) also emerged. Adding to the emerging literature demonstrating that affect is more predictive of behavioral intentions than deliberative risk perceptions, this study found that FOV were better predictors of exercise intentions than measures of risk perception among people with T2DM. These findings suggest that affective reactions of risk play a substantial role in predicting health behaviors and have important implications for the design of interventions targeting behavior change.

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B-059b

THE RELATIONSHIP BETWEEN DEPRESSION AND DIABETES SELF-CARE BEHAVIORS

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By the year 2030, diabetes may affect 439 million people worldwide (Shaw, Sicree, & Zimmet, 2010). This alarming growth rate highlights the need for a better understanding of appropriate diabetes self-care. Unfortunately, depressive symptoms are often comorbid with diabetes and depression has been related to poor adherence to several diabetes self-care behaviors (Gonzalez et al., 2007). Therefore, the present study investigated the relationship between disease type, gender, and depression for three diabetes self-care behaviors: diet, exercise, and blood glucose testing (BGT). An anonymous internet survey was completed by 32 individuals with diabetes (13 male, 19 female, age M=44.25 years). Demographic information was collected and depression was assessed via the CES-D (Radloff, 1977). Diabetes self-care was measured via the SDSCA (Toobert, Hampson, & Glasgow, 2000), in terms of how many days/week respondents followed their prescribed diet, exercise, and BGT regimen. General linear modeling results indicated that disease type, gender, and depression levels were significantly related to the frequency of BGT. Females (M=6.36) performed more frequent daily BGT than did males (M=5.46), and individuals with type 1 diabetes (M=6.95) performed more frequent BGT than did individuals with type 2 diabetes (M=4.88). As depression increased, BGT decreased (r = -.53, p <. 05). A significant sex by disease type interaction also emerged, such that males with type 2 diabetes performed BGT less frequently than did other groups [F(1, 27) = 17.45, P <.05]. Only a disease type by sex interaction emerged for exercise [F(1, 27) = 4.97, P <.05]. Here again, males with type 2 diabetes performed exercise less frequently. No variables were significantly related to diet adherence. The present data indicate that depression was differentially related to diabetes self-care behavior. In particular, addressing the comorbidity of depression in individuals with diabetes may be especially important to improving the ability to perform appropriate blood glucose testing.

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B-059c

CORRELATES OF INTRINSIC MOTIVATION IN MINORITY YOUTH WITH TYPE 1 DIABETES

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Intrinsic motivation (IM) has been shown to be a significant predictor of regimen adherence in individuals with chronic illnesses such as diabetes. The aim of this study was to identify factors associated with IM in order to better understand its relationship to regimen adherence in minority youth with type 1 diabetes (T1D) who are at risk for poor glycemic control. Initial results from an intervention study in which a self-report measure for IM was developed and validated showed that IM was positively related with regimen adherence (r=.617, p<.001). Participants for the current study were between the ages of 12-16 (M= 13.46, SD=1.22), diagnosed with T1D for at least one year, and were recruited during a regularly scheduled outpatient diabetes clinic appointment. The current study sample includes thirty-five minority youth with T1D (54.3% male, 45.7% female, 12.9% African American, 87.1% Hispanic). Participants were administered the Intrinsic Motivation Inventory for Diabetes Management (IMI-DM), Diabetes Family Conflict Scale, Diabetes Social Support Questionnaire, and the Beck Depression Inventory for Youth. IM was associated with age (r=-.475, p=.008) but not with other demographic variables such as gender and socioeconomic status. IM was inversely correlated with diabetes family conflict (r=-.368, p=.046) and marginally associated with depression (r=-.354, p=.055). There was also a positive association between IM and diabetes family support (r=.363, p=.049). These findings indicate that lower levels of family conflict and depression, and greater family support are important correlates of IM in minority youth with T1D, and suggest that these factors may be important to consider in interventions designed to increase IM and improve regimen adherence.

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B-059d

DISENTANGLING THE CAUSAL RELATIONSHIP BETWEEN DEPRESSIVE SYMPTOMS AND GLYCEMIC CONTROL

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Background. Depressive symptoms and glycemic control are highly correlated, but the direction was not clear. Objectives. In the present study we investigated the extent to which one of the two possible directions of causation was present, or even predominant. Methods. Depressive symptoms and hemoglobin A1c (HbA1c) among 389 middle-aged and older adults were recorded in both 2003 and 2006. Cross-lagged panel design with structural equation modeling was used to analyze the data. Results. Reciprocal relationship was not found in the study— depressive symptoms prospectively predict HbA1c (t=3.03) but not the other way around (t=.64). The effect was similar in both men and women, and was controlled by possible behavioral covariates. Multi-group analysis further revealed that while depressive symptoms to HbA1c link among those who have low family and friends support was strong (t=4.03), the path surrendered to non-significant (t=.68) in adults with high family and friends support. Conclusions. This study suggests that family and friends support served as an important buffering effect in the depressive symptoms to HbA1c link. Efficient diabetes care may be achieved by considering more psychological factors of the patients.

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B-063a

MENTAL HEALTH PROFESSIONALS AND THEIR MULTICULTURAL LEADERSHIP PRACTICES

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Mental health researchers and counseling practitioners are concerned with improving multicultural practices in human service organizations due to the rapidly diversifying population in the U.S.

and in response to current problems with service utilization and delivery. Counseling professionals have called practitioners to advocate for social justice on behalf of the profession. To date, most research has focused on practitioners' multicultural competence in service delivery and some has focused on the relationship between organizational multicultural competencies and service outcomes. This qualitatve study moves beyond multicultural counseling and organizational competencies and seeks to fill the gap in research between organizational practices and leadership practices at the individual level. Leaders in mental health at various levels were interviewed to collect data regarding their understandings of multiculturalism, their multicultural leadership practices, and to describe key diversity-related learning experiences. Through a descriptive interpretive analysis, several themes emerged such as: awareness of diversity beyond race & the existence of multiple identities, awareness of racism & white privilege, transformative learning leading to modification of communication strategies, and organizational challenges related to implementing multicultural practices. The findings add to the understanding of the intersection of multicultural practitioner training and organizational demands and call attention to the numerous factors and learning experiences that influence the behavior of mental health leaders in organizational settings. The findings also contribute to the general literature that guides and supports multicultural leadership training for leaders in mental health settings.

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B-070a

TRAUMA WRITING IN AN HIV+ POPULATION: ASSESSING THE RELATIONSHIP BETWEEN EMOTIONAL EXPRESSION, TWO SCORING METHODS OF EMOTIONAL/COGNITIVE PROCESSING AND PHYSICAL SYMPTOMS OF HIV

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Objective: The purpose of the present study was to examine whether level of written emotional expression (EE) and emotional/cognitive processing (ECP) for traumatic events predicts physical symptoms (Category B symptoms) in an HIV+ population over four years. Specifically, two different scoring methods of two variables within ECP (cognitive appraisal and self-esteem) were compared to see if a scoring method using change score (SMCHANGE) or a final score (SMFINAL) better predict outcomes. Methods: This longitudinal study assessed 169 HIV+ and diverse men and women in the midrange of illness as indicated by a CD4 number between 150 and 500 and no previous AIDS-defining symptom. Essays about trauma were scored for EE (positive and negative) and ECP (cognitive appraisal, self-esteem, problem solving and task involvement). Hierarchical Linear Modeling was used to examine change over time (4 years) in Category B symptoms (measured every 6 months), controlling for age, gender, ethnicity, education, anti-HIV medication and Category B symptoms at baseline. Results: Positive EE and higher ECP was found to be significantly related to fewer Category B symptoms over time (slopes) while negative EE was not. SMCHANGE scores predicted Category B symptoms slope better than SMFINAL. Positive EE mediated the relationship between ECP and Category B symptoms slope. Conclusions: Higher engagement in positive EE and ECP within emotional writing about a trauma contributes to beneficial changes in the experience of physical health symptoms over time within HIV+ individuals. Scoring for change on the ECP variables seems to be a better method for predicting symptoms than is scoring for final ECP. Findings provide new evidence that positive EE plays a meditational role between ECP and Category B symptoms. These findings can be used to help improve health for patients in future studies or in CBT therapies.

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B-070b

ASSOCIATION OF CIGARETTE SMOKING AND THE HEALTH-RELATED QUALITY OF LIFE OF WOMEN WITH HIV

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Objective: Cigarette smoking may be associated with HRQOL and is highly prevalent in individuals with HIV. Using data from the Women's Interagency HIV Study (WIHS), the purpose of the study was to assess the relationship between cigarette smoking and HRQOL among women with or at risk for HIV. Methods: Using data from the WIHS, we conducted a cross-sectional study assessing the association of smoking status with HRQOL. The sample for the current study consisted of 879 HIV-uninfected and 1,942 HIV-infected women. HRQOL was assessed using the Medical Outcomes Study HIV Health Survey which consists of nine subscales and a global HRQOL scale. We conducted multivariate analyses of variance (MANOVA) procedures to examine differences between smoking status and HRQOL controlling for selected socio-demographic, behavioral risk factors, and clinical indicators. Results: The mean age was 34.5 years; 51.0% of women were current smokers and 15% were former smokers. Current smokers had lower incomes and more unstable living conditions than former and never smokers. Multivariate regression analysis results revealed that smoking status was significantly associated with lower overall HRQOL for current ($\beta = -8.39$, $p = .000$) and former smokers ($\beta = -3.99$, $p = .001$) when compared to never smokers. Multivariate logistic regression analysis and contrast tests indicated significant differences when comparing never to current, never to former, and current to former smokers for the following dimensions of HRQOL: physical functioning, role functioning, and pain after controlling for covariates. Conclusion: We found that current and former smokers had lower scores on several important HRQOL dimensions, as such smoking status may serve as a useful behavioral marker that a patient is either experiencing or at risk to experience poorer HRQOL.

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B-070c

OXYTOCIN MODERATES THE EFFECTS OF COGNITIVE BEHAVIORAL STRESS MANAGEMENT INTERVENTION ON SOCIAL WELL-BEING IN WOMEN CO-INFECTED WITH HIV AND HPV

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Background: Women co-infected with HIV and Human Papillomavirus (HPV) often have high stress and decreased social resources, which may lead to faster HIV and HPV disease progression. Cognitive Behavioral Stress Management (CBSM) has been shown to improve psychosocial and disease-related parameters in HIV+ samples. Recent research has revealed that naturally circulating oxytocin (OT) relates to social interactions, stress, and disease progression in HIV+ women. We investigated OT as a moderator of a CBSM intervention in HIV/HPV+ women and hypothesized that CBSM would have its largest effects on social well-being (SWB) in women with high levels of OT.

Methods: Participants were 23 HIV/HPV+ women (ages 18-43; 70% Afro-Caribbean) who enrolled in an exploratory RCT examining the effects of CBSM on health outcomes. Women were randomized to either the 10-wk CBSM intervention or a one-day psychoeducational control. At baseline and post-intervention, women provided blood samples for plasma OT assays and completed the Functional Assessment of HIV Infection Scale (FAHI), which measured SWB.

Results: Moderated regression analyses revealed a significant OT x CBSM group interaction in predicting post-intervention SWB, controlling for age, ethnicity, education, CD4 count, and baseline SWB. For participants with high levels of OT, the CBSM intervention was associated with higher SWB ($t = 2.66$, $p < .05$), but for participants with low OT, CBSM showed no effects on SWB ($t = 0.11$, $p > .05$).

Conclusion: Naturally circulating levels of OT may impact women's responses to CBSM intervention, and may interact with exposure to social situations to produce beneficial effects on psychosocial outcomes such as SWB. Future studies should examine whether increasing SWB helps reduce stress and slow disease progression in HIV/HPV+ women.

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B-070d

CONDOM ATTITUDES AND USE AMONG FIRST YEAR COLLEGE STUDENTS ATTENDING A HISTORICALLY BLACK COLLEGE AND UNIVERSITY: A THREE-YEAR PERSPECTIVE

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HIV remains a major public health threat among young people residing in the United States. The increased sexually transmitted infection (STI) incidence rates for young people aged 25 and younger are disproportionately high among young Blacks aged 13 to 29. There is a small but growing body of research that has purported that Black college students may serve as a bridge between high and low risk populations, as a result, students attending historically Black colleges and universities (HBCUs) are an important population to study. These data were collected as part of an annual college student health survey conducted at a consortium of HBCUs. A subsample of (N=1,117) Black male students was analyzed in the current study. Condom use at last sex and condom attitudes were examined. An average of 31% of the participants reported never having engaged in sexual intercourse. Students who used condoms at last sexual intercourse had significantly more positive condom attitudes over all three years. Using a substance before engaging in sexual intercourse did not have a significant impact on condom use. Given that increasing numbers of HIV/STIs among young Black men and the limited number of interventions that target this population, it is imperative to conduct more intra-group investigations of this population in order to gain a better understanding of their sexual health attitudes and behaviors.

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B-070e

EFFECT OF PANIC DISORDER ON HIV MEDICATION ADHERENCE AND HIV SYMPTOM DISTRESS

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Anxiety and depression are highly prevalent and co-morbid among persons with HIV. Notably, panic disorder (PD) occurs at greater rates among those with compared to those without HIV. Symptoms of advancing HIV disease and HIV medication side-effects can overlap with panic symptoms (e.g., nausea, dizziness). Distress related to HIV symptoms is significantly related to medication non-adherence; a vital component of successful disease management.

Previous work suggests elevated levels of anxiety and depression are related to HIV medication non-adherence and HIV symptom distress. To date, research has not examined the effects of co-morbid PD and depression on HIV medication adherence and HIV symptom distress. This is especially relevant in individuals who may be coping with the challenges of treatment for opiate dependence.

The current study examined differences within a group of highly co-morbid individuals: In patients managing the multiple challenges of HIV, depression and opioid treatment, we examined the additive effects of PD. In this cohort we compared those with and without PD on Medication Event Monitoring System (MEMS) assessed 2-week medication adherence and HIV symptom distress. Participants were 159 (41% Female; M age = 47, $SD = 7.09$) adults with HIV and clinical depression. 23% of this sample met criteria for a current diagnosis of PD. Results indicated that those with PD evidenced significantly greater levels of HIV symptom distress ($t = 2.7$, $p = .008$) and lower levels of medication adherence ($t = 2.48$, $p = .02$) than those without.

Findings highlight the clinical importance of assessing for, and treating anxiety disorders among individuals in treatment for HIV. It is noteworthy that anxiety may significantly impact antiretroviral (ART) adherence even in the presence of mood and substance use disorders. Future work is needed to further explicate the exact nature of these findings in terms of directionality and underlying mechanisms. HIV treatment may well be supported by integrated treatment models that can address multiple mental health challenges.

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B-082a

YOU DON'T NEED TO BE A LIFELONG GURU: BRIEF LOVING-KINDNESS MEDITATION PROMOTES FORGIVENESS AND OFFERS HEALTH BENEFITS

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Research has indicated that loving-kindness meditation can benefit individuals' physical and psychological health (Fredrickson et al., 2008; Hutcherson et al., 2008). Prior research has been limited by a variety of factors, including the number of hours participants are expected to meditate to achieve health benefits (e.g., 26 hours; Carmody & Baer, 2009), as well as the almost exclusive use of advanced clinicians to administer meditation. Hence, the current study examined physical and psychological health effects of a brief loving-kindness meditation facilitated by trained peer-leaders.

Participants completed three total sessions over a week-long period, with a follow-up questionnaire two weeks later. Participants (N= 46) were randomly assigned to either a loving-kindness meditation group (n= 22) or control group (n= 24) and completed questionnaires pre- and post-condition. All questionnaires included measures of mood, forgiveness, self-kindness, and sleep disturbance. Meditation participants were led in loving-kindness meditation for a total of 1 hour over 3 sessions, while control participants read about the research and history of meditation for the same amount of time.

A mixed model ANOVA was performed on all dependent variables across time. The effect of positive and negative mood was not significant (p=.27, .12). Measures of forgiveness (p= .036), self-kindness (p= .031), and sleep disturbance (p= .001) each demonstrated a group*time interaction. Follow-up simple effects tests revealed that the meditation condition improved from pre-to post-condition as compared to controls for forgiveness (p=.001) and sleep disturbance (p=.001). This study demonstrates the efficacy of a brief, peer-led, loving-kindness meditation for promoting forgiveness and its positive effects. Continued enhancement of this type of intervention could provide efficient and accessible options for those struggling with forgiveness issues and resultant quality of life impairments.

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B-082b

THE IMPACT OF ACCULTURATION AND PERCEIVED SOCIAL SUPPORT ON DEPRESSION, ANXIETY, AND STRESS IN A YOUNG ADULT HISPANIC SAMPLE

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Studies have suggested that acculturation facilitates daily social interactions, yet that it is also related to decreased familial support. Acculturation has been related to both lower and higher levels of depression and stress. As past findings have been inconsistent, and there seems a need to assess acculturation coupled with social support, the present study examined the influence of acculturation, social support, and their interaction on symptoms of depression, anxiety, and stress in a U.S.-México border student sample.

Hispanic participants (n = 433; 59% female Mage=20.08 years, SD= 3.96) completed typical sociodemographics, the Short Acculturation Scale for Hispanics, the Depression, Anxiety, and Stress Scale, and the Multidimensional Scale of Perceived Social Support. Three linear regression analyses were conducted to examine predictors of DASS subscales. Potential predictors were acculturation score, perceived social support score, and their interaction. Results indicated that perceived social support was a significant inverse predictor of depression (β= -.324, p< .001), anxiety (β= -.258, p< .001), and stress (β= -.210, p< .001). Neither acculturation nor the interaction were associated with distress outcomes.

Our findings are consistent with studies suggesting social support as a protective factor against distress symptoms, yet add to the inconsistency of findings within the acculturation literature. Border region findings with regard to acculturation and health related constructs (e.g., smoking) have also been mixed. It may be that the region's unique location allowing for frequent border crossing leads to less of an influence of acculturation on health and mental health than may be seen in other locations. Future studies on the border may wish to supplant acculturation measures with other culturally related constructs.

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B-082c

CALLIGRAPHY-GUQIN FOR BRAIN HEALTH AND EMOTION

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Previous study has shown that calligraphy training improves one's cognitive functions as well as emotional and mental health conditions (Kao, 2011; Kwok, et.al, 2011). Guqin is a seven-stringed Chinese zither without bridges, which has been the preferred instrument of the Chinese scholars and literati for inducing emotion regulation and stability.

We investigated the effects of Guqin and calligraphy training by finger writing, both for the first time, through a single-case clinical trial focusing on brain health and emotion regulation.

We employed a HRV Calligraphy-Guqin biofeedback intervention that is implemented with a Zephyr Blue Tooth chest heartrate device and a HTC EVO 3D Android mobile phone. A Web-based HRV App, the Heart-Love, stored the data from 3 consecutive sessions of the intervention: (1) 5 minutes of Guqin music listening; (2) 5 minutes of finger writing of calligraphy and (3) again 5 minutes of Guqin music listening.

Results showed that the first and third Guqin sessions elicited 55% and 68% respectively, and the second calligraphy session elicited 31% of high HRV coherence. This indicated a preliminary observation that finger calligraphy and Guqin music listening both improved one's emotion regulation, and that this effect could mean a shortening of intervention duration as well as an application of both treatments with the use of a smart phone or a hand-held tablet.

The third session with finger writing of calligraphy further demonstrated a brain activation elicitation of 31% high and 69% medium HRV coherence ratios, showing that the heart and brain were interacting under a balanced state. We believe this practice contributed to increased emotion regulation from 55% to 68% of high HRV coherence through an increase in attention and concentration that are associated with the practice of calligraphy (Kao, 2000).

Results are discussed from the theories of HRV coherence and heart-brain interactions (McCarty, et al, 2009).

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B-082d

THE IMPACT OF TRAINING AND EXPERIENCE ON COLLABORATIVE CARE REFERRALS FROM PRIMARY CARE PHYSICIANS FOR BEHAVIORAL MEDICINE INTERNS IN A PRIMARY CARE SETTING

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Between 30-50% of mental health (MH) issues first present in primary care settings (Ford, 2006). This study examined the types of MH referrals received from physicians at various levels of within a medical clinic that offers free MH services to all patients to assess physician training needs.

Methods: The following data were collected over an 8-month period by MH interns: physician name, year in residence/faculty, pt. age group, and reason for referral to MH services.

Results: Physicians made 324 MH referrals during this period. The most common reasons for referral included depression (n=121, 37.3%), diabetes management (n=77, 23.8%), anxiety (n=60, 18.5%), stress (n=33, 10.2%), and grief (n=25, 7.7%). The majority of referrals were for adults (n=307, 95%). There were no significant differences in reasons for referrals between residents and faculty based on ANOVA analyses.

Conclusion: Training and experience did not impact the types of referrals received by resident and faculty physicians. Most referrals were for conditions causing distress, such as grief, depression, and anxiety. Physicians also made MH referrals for management of diabetes. Educating physicians on mental health needs of children and teens and the role for MH interns in pain and chronic disease management, adherence, and health behavior change may increase these referrals.

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B-082e

POSITIVE PERSONAL, FAMILY, AND SOCIAL CHARACTERISTICS PROTECT LOW SES CHILDREN FROM REDUCED QUALITY OF LIFE

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There are substantial and ubiquitous disparities in children's health and development associated with socio-economic status (SES), yet a portion of children in low SES families are resilient against the effects of poverty and fair well. Examination of protective factors that foster such resilience can lead to more effective prevention and intervention efforts in the future. In this study, we investigated the following questions related to quality of life (QL): (1) To what extent do positive personal, family, and social characteristics act as moderators of the negative outcomes associated with low SES, such that they can be identified to have protective effects? (2) How do these positive personal, family, and social characteristics relate to each other in affecting resilience? Data from 4,824 Hispanic, African American, or White children were examined, drawing from the Healthy Passages™ study, a population-based survey of fifth-grade children in three US metropolitan areas. Children reported their own physical, emotional, social, and school QL using the PedsQL. SES was indexed by parent education and household income. Six selected personal, family, and social characteristics were measured using various psychometric scales and checklists, using both child- and parent-report. Our results showed that children's empathy, parental nurturance, peer support, and extra-familial support moderated the association between low SES with reduced QL, establishing them as protective factors. Furthermore, in half of the cases low SES children with high levels of a given protective factor reported a level of QL indistinguishable from that of high SES children with low levels of the same protective factor. Further analyses are examining any disparities in these relationships among racial/ethnic groups. These results suggest that positive personal, family, and social characteristics can help to reduce the disparities in QL associated with SES and may suggest possible targets for interventions.

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B-082f

SENSITIVITY AND SPECIFICITY OF SCREENING MEASURES FOR ALCOHOL MISUSE, DEPRESSION, AND PTSD IN PRIMARY CARE VETERANS

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Annual screening measures are valuable in the identification of alcohol and mood disorders. Screening measures are intended to identify individuals with a given characteristic (sensitivity) while concurrently excluding those without the characteristic (specificity). As one quality is often improved at the expense of another, cut-points may vary based on the goal of the measure administrator. The present analysis investigated optimal cut points for three measures routinely administered in VA primary care. The sample was comprised of predominantly Caucasian, male Veterans (n=1820). Veterans were referred from primary care to the Behavioral Telehealth Center (BTC) after screening positive on either the AUDIT-C, PC-PTSD, or PHQ-2. During the BTC interaction the PCL, MINI alcohol use, and PHQ-9 were administered. Sensitivity and specificity for each measure was calculated at their recommended cut-points and at alternative cut-points. At the recommended cut point of 3, the PHQ-2 demonstrated a sensitivity of .46 and a specificity of .94. Changing the cut-point to 2 increased sensitivity to .60 and decreased specificity to .88. The PC-PTSD recommended cut point of 3 generated a sensitivity of .54 and a specificity of .97. Changing the PC-PTSD cut-point to 2 had a negligible effect on the results (sensitivity = .55; specificity = .95). The AUDIT-C, using the traditional cut-offs of 4 for men and 3 for women, yielded a sensitivity of .95 and a specificity of .16. Raising the cut by one point for each sex decreased the measure's sensitivity (.84) but increased the specificity (.44). In this sample of Veterans referred for behavioral health problems, decreasing cut-points may be effective for the PHQ-2, but does not significantly alter the performance of the PC-PTSD. Raising the cut-point for the AUDIT-C increases specificity, while slightly decreasing sensitivity. While this sample may be more severe than the populations with which these measures were initially tested, our results suggest that varying cut-points with population severity may be beneficial.

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B-082g

THE RELATION OF TRAIT ANXIETY TO QUALITY OF LIFE PRIOR TO CORONARY ARTERY BYPASS GRAFT (CABG)

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The State Trait Anxiety Inventory (STAI) has been shown to be a sensitive instrument for identifying patients at risk for psychological distress following Coronary Artery Bypass Graft (CABG). Evidence also suggests that CABG surgery alone may lead to decreases in overall quality of life. We investigated the relationship between levels of anxiety and mental well-being in the context of quality of life among pre-operative CABG patients (N = 25; 76% male; age 41-70 (M=56.72, SD= 8.70); number of damaged blood vessels 1-5 (M= 3.28, SD= 1.06)). Trait anxiety and quality of life were obtained using the State Trait Anxiety Inventory (STAI) and mental and physical subscales of the Medical Outcomes Study Short-Form Health Survey (MOS SF-36). It was hypothesized that higher levels of anxiety based on the STAI measure would predict lower scores of quality of life as characterized by the MOS SF-36 prior to surgery. While controlling for age, exercise, social support, sleep, alcohol use, and tobacco use, hierarchical linear regression analyses were used. These analyses revealed that higher levels of anxiety were significantly related to lower levels of quality of life on mental subscales ($\beta = -.713$, $p < .01$) which accounted for 25% of the variance. These analyses did not however find trait anxiety to be significantly related to lower levels of quality of life on the physical subscales ($\beta = -.158$, $p > .05$). A bi-directional relationship was found between trait anxiety and mental well-being, as an increase in trait anxiety resulted in a decrease in mental well-being. These results indicate that higher levels of pre-operative trait anxiety could be a good predictor for lower quality of life, given that quality of life has been shown to worsen with CABG. These measures could be used to identify those who are at risk for experiencing lower levels of life satisfaction. Preventive strategies such as psychosocial interventions and broadening supportive networks could then be implemented to ameliorate any declines in the patients' quality of life.

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B-082h

THE IMPACT OF COMPREHENSIVE SCREENING ON PROBLEM IDENTIFICATION AND PROVIDER-PARENT COMMUNICATION IN PEDIATRIC PRIMARY CARE

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Pediatric primary care providers are expected to screen for mental health issues during routine well child visits. Electronic screening tools have been shown to be feasible, but research on how these tools affect the processes occurring during the visit are limited. This study used a mixed methods design to evaluate the acceptability for parents and primary care practitioners (PCPs) of an electronic pre-visit screener designed to comprehensively assess child health. Parents were recruited from three primary care systems (urban MD and rural NY, VT, NH) when they presented for a well child visit with a child 4 to 10 years of age. Parents completed an electronic pre-visit screen which included somatic concerns, health risks, and four mental health tools (SCARED5, PHQ-2 and SDQ impact questions that, if positive, led to the PSC-17). A summary report was provided to the PCP and parent at the start of the visit. All parents completed an exit questionnaire. A subset iof parents and all PCPs participated in a follow-up phone interview. The exit surveys showed that nearly 90% of parents agree that the screener was easy to use, maintained confidentiality, and was secure. During interviews, parents noted that the screener helps with recall, validates concerns, reframes issues, and raises new questions. PCPs felt that the screener enabled them to avoid the 'door knob' question, normalize sensitive issues like weight or mental health issues, and be comprehensive during the visit. Parents and PCPs agreed that the screener promotes a focus on areas of greatest importance, guides discussion, and allows for in-depth exchange during the visit. The electronic format and the comprehensive approach was felt to be a efficient and productive. Findings were consistent across quantitative and qualitative methods and between parents and PCPs.

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B-086a

AN 87-ITEM TAXONOMY OF BEHAVIOR CHANGE TECHNIQUES: BUILDING AN INTERNATIONAL CONSENSUS FOR THE REPORTING OF BEHAVIOR CHANGE INTERVENTIONS

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Background: Behavioral medicine needs precise, unambiguous methods of specifying the content of behavior change interventions. This would advance effectiveness in replicating effective BCIs, synthesising evidence and understanding the causal mechanisms underlying behavior change. Whilst some reliable taxonomies of behaviour change techniques (BCTs) exist, a comprehensive set based on more rigorous methodology is required.

Objectives: To develop an extensive and consensually agreed taxonomy of BCTs with clear and distinct labels and definitions, investigate a hierarchical structure for the taxonomy, and lay the foundation for future international collaboration in this cumulative process.

Methods: In a systematic Delphi-type exercise, 14 experts rated 94 BCT labels and definitions from 6 published taxonomies in terms of active ingredients, overlap and redundancy, clarity, precision, distinctiveness and confidence of use. 18 experts then grouped the resulting BCTs in an online sort task allowing up to 24 categories with no a priori labelling. The results, along with comments from a wider international group and pilot coders, were used to produce a hierarchically structured BCT Taxonomy V1.

Results: The majority of BCTs required further work on their label and/or definition. 9 BCTs were added, 20 omitted and 4 divided, resulting in 87 BCTs. Cluster analysis identified 16 clusters with internal validity 0.57. Multi-scale resampling methods supported 12 clusters and strongly supported 7, including 72 of the 87 BCTs.

Conclusions: The resulting extensive, hierarchical list of consensually agreed, clear and distinct BCTs constitutes ‘BCT Taxonomy V1’ and was judged by the International Advisory Board to be usable for specifying interventions. The next steps are to encourage adoption and evaluate usefulness.

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B-086b

DESIGNING A HEALTH PROMOTING SMARTPHONE APP FOR ADOLESCENTS CANCER SURVIVORS: MILA CELESTIAL BLOOM

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Survivors of childhood Acute Lymphoblastic Leukemia are at increased risk for a number of long-term health problems. Interventions are difficult to deliver to these survivors due to their geographically dispersed nature, and the fact that they make few clinic visits during adolescence; these factors point towards distance based strategies. This poster presents the process of developing a novel theory-based smartphone app to augment coaching to improve diet and physical activity among adolescent cancer survivors.

Aspects of Social-Cognitive Theory (SCT) and traditional game design (e.g., story genre, goals, rules, a feedback system, rewards) were used to develop an app that will allow for self-monitoring of health behaviors, social networking, and engagement in a cooperative game. Throughout the development process, design concepts were presented to teen cancer survivors and their parents through individual interviews (n=6). Themes that emerged during the interviews were reviewed and incorporated.

An initial game concept was presented during interviews, as well as the planned features of the app (self-monitoring and social network tools). Adolescents were drawn to the “gameification” features (ability to earn virtual points for engaging in real-world physical activity or eating healthy foods), the social networking components, and system reminders to help them stay engaged and on target. In subsequent iterations, game features were enhanced to include a “back-story” and more cooperative play. In the game, participants must reach the peaks of virtual mountains to capture Mila Blooms that hold the key to earth’s survival. This cannot be achieved by one player alone, but must be a cooperative venture. Points are awarded to individuals as they meet health milestones in real-life.

Using smartphone apps for promoting health in adolescent populations may hold great promise. Extending basic self-monitoring apps to also include game-like features may increase engagement. It will be important to test the efficacy of such “game-apps” at changing behavior.

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B-092a

DEVELOPMENT AND PILOT-TESTING OF THE FOOD STORE SELECTION QUESTIONNAIRE

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Proximity of food stores, specifically supermarkets, has been linked with dietary intake and obesity; however, research has found that individuals rarely shop at the most proximal food store. Little is known about other reasons that motivate people to shop at certain food stores at which healthy foods may or may not be accessible. The current study pilots the 63-item Food Store Selection Questionnaire (FSSQ) and gathers information about the relative importance of various factors in food store choice.

Development of the FSSQ involved a multidisciplinary literature review of previous research examining food store choice and qualitative analysis of focus group transcripts, followed by expert panel review and review by community members. Pilot testing was conducted with primary household food shoppers (n=100; 93% female, 64% African American, mean age=50.6+12.9, mean BMI=33.4+12.9 kg/m2) from both rural and more urban areas in Arkansas who rated the items as to their importance in choosing a store (1-5 scale: 1=not at all, 5=very) and indicated their top 2 reasons for choosing a food store.

The 9 items with the highest importance (mean value >4.5) were: 1) freshness of meat; 2) store maintenance; 3) store cleanliness; 4) meat varieties; 5) store safety; 6) ease in finding items on one’s list; 7) fruit/vegetable freshness; 8) hours of operation; and 9) fruit/vegetable variety. The items most commonly rated as the #1 or #2 reasons (with >10 participants characterizing the reason as such) were: 1) low prices; 2) proximity to home; 3) fruit/vegetable freshness; 4) fruit/vegetable variety; and 5) store cleanliness.

Although proximity to home was a consideration for participants, there were clearly other key factors in their choice of a food store. Understanding the relative importance of different dimensions driving food store choice may inform policies and programs to promote food environmental changes designed to support healthy dietary intake and obesity prevention.

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B-092b

A TALE OF TWO ETHNICITIES: PHYSICAL ACTIVITY AND DIETARY PATTERNS OF HISPANICS IN PUERTO RICO (PR) VERSUS HISPANICS IN THE U.S

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Hispanics are the largest and fastest growing group in the U.S. Hispanic subgroups are diverse; this diversity is important when assessing dietary data as the groups may differ in immigration history and level of acculturation. Living in the U.S. negatively affects the health of Hispanics. More acculturated Hispanics tend to engage in unfavorable health practices and experience higher mortality rates.

To determine whether there are differences in the consumption of fruit and vegetables and physical activity patterns based on region (i.e., mainland vs.PR) and level of acculturation.

The 2007 Health Information National Trends Survey (HINTS U.S. and PR) was analyzed. Analysis was limited to Hispanic or Latino participants: PR; n= 631 and U.S.; n=622. They reported race/ethnicity, weight, physical activity level, fruit and vegetable consumption. Acculturation was assessed using the following; nativity (born in U.S. vs. not); year arrived in the U.S. and duration of U.S. residence (calculated by subtracting year of arrival from the year of data collection, 2007; subsequently grouped as U.S. born, 0-5y, 6-14y and 15+ y) and Hispanics in PR. Multinomial and binary logistic regressions were used to analyze the data.

Hispanics in PR reported engaging in significantly more physical activity than Hispanics born in the US (OR = 1.01, $P<0.001$) and those residing in US for more than 14 years (OR = 1.01, $P<0.001$). They also reported consuming more vegetables than Hispanics born in the US (OR = 1.45, $P<0.001$) and those in the US for 6-14 years (OR = 1.41, $P=0.01$). Taken as one group, Hispanics in the U.S. consumed significantly more vegetables (OR = 0.99, $P<0.001$) and exercised (OR = 0.75, $P=0.00$) more than those in P R.

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B-092c

LESSONS LEARNED FROM IMPLEMENTING BODY & SOUL: AN EVIDENCE-BASED NUTRITION INTERVENTION IN AFRICAN AMERICAN CHURCHES

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Body & Soul program, an evidence-based dietary intervention designed for African American churches, is currently disseminated nationally by the National Cancer Institute. The program has four components: pastoral involvement, educational activities, environmental changes, and peer counseling. Research is needed to understand how churches implement the program in the dissemination phase. The ACTS of Wellness trial randomized 9 churches to implement Body & Soul with limited technical support. The purpose was to understand and identify barriers and facilitators to program implementation for adopting health promotion programs in the real world.

Following intervention completion, telephone interviews were completed at with church coordinators to identify successes and challenges to program implementation. The qualitative interviews collected information on activities and changes implemented in addition to barriers and facilitators to program implementation. Qualitative content analysis was used to identify themes and categories.

Eight of the nine churches partially or fully implemented all components. One church did not implement any component. Three themes emerged from the descriptive interviews of Church coordinators (n=5, 100% African American, 100% women) as both facilitators and barriers to implementation. Categories within each theme were also identified. Theme 1: Support for implementation; Categories: i. Internal support and ii. External support. Theme 2: Motivation; Categories: i. Members and ii. Staff, and Theme 3: Administration; Categories: i. Organization and ii. Activities.

Churches had some challenges with implementing the full program on their own. Identifying potential barriers, resources and church needs prior to program start up is essential for full program implementation. Technical assistance may not be available or practical in the dissemination phase. Efforts should be placed on identifying internal and external resources that can address barriers and increase support for implementation of health programs.

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B-116a

THE IMPACT OF PRIMARY CARE WEIGHT ADVICE

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Background: Direct recognition of patient weight may be an important step to motivate patients to lose weight. Few have examined the impact of physicians explicitly stating that patients are overweight on patient weight loss. The objective of this study is to examine the association of patient recall of doctors' recognition of patients' overweight status with patient-reported weight loss by comparing 2005-2008 data from the National Health and Nutrition Examination Survey (NHANES).

Methods: We analyzed 5054 nonpregnant overweight and obese (BMI ≥ 25) participants aged 20 to 64 years who had responded to the question, "Has a doctor or other health professional ever told you that you were overweight?" The main outcome measure was the proportion of participants who lost at least 5% of their body weight in the past year.

Results: Overweight and obese participants were significantly more likely to report a 5% loss of weight in the past year if they recalled that their doctor told them they were overweight (overweight: adjusted OR 2.08; 95% CI 1.62-2.66; obese: adjusted OR 1.81; 95% CI 1.34-2.44). Overweight and obese patients were also more likely to report a 10% loss of body weight in the past year if they recalled that their doctor recognized their weight (overweight: adjusted OR 2.81; 95% CI 1.93-4.06; obese: adjusted OR 2.27; 95% CI 1.31-3.94).

Conclusions: Patient recall of physicians' recognition of their weight status is associated with patient reported weight loss. Specifically, overweight and obese individuals have almost two times the odds of reporting a 5% loss of weight in the past year. This suggests that physician acknowledgement of weight status may have a measurable impact on weight.

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B-116b

"I WANT TO TALK WITH YOU ABOUT YOUR ..." PROVIDERS' PREFERRED TERMINOLOGY FOR DISCUSSING PATIENTS' OBESITY

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Choosing appropriate language can be challenging for providers who counsel obese patients about weight loss. Providers must balance the need to accurately convey obesity's clinical severity, while being careful to avoid stigmatizing or blaming the patient. This study sought to explore providers' preferred terminology for discussing weight with patients. We surveyed (March-June 2011) all adult medicine primary care providers (PCPs) in a system of six community health centers (CHCs) in central North Carolina. We contacted eligible providers (n=45) by email and administered a modified version of the Weight Preferences Questionnaire, which asks participants to imagine counseling a patient about obesity. Participants rated the un/desirability of 11 terms used to describe weight on a 5-point, Likert-type scale. Forty-two PCPs completed the survey (93% response rate). We used the Friedman test to assess differences in the ranking of terms. Using the post-hoc testing method proposed by Conover, we evaluated whether pairs of terms significantly differed. Finally, we stratified the sample by provider characteristics such as degree (M.D. versus other), gender, and graduation year (median split at 1988). "Weight" was rated as significantly more desirable than all other terms (p<.05). Ratings for "excess weight" and "body mass index," the second and third most desirable terms, did not differ. "Excess fat" and "fatness" were rated as significantly less desirable than all other terms (p<.05). Rankings of preferred terms were similar in each strata. The four most preferred terms were the same in each strata, although in some cases there was minor and non-significant variation in their order. In all strata, "weight" was consistently rated as most preferable and "fatness" or "excess fat" viewed as least desirable. Although there is evidence that the use of neutral terms such as "weight" may be associated with limited clinical utility, results from this study suggest that providers strongly prefer the use of these terms when discussing obesity in clinical settings.

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B-116c

THE INFLUENCE OF REALITY WEIGHT LOSS TELEVISION SHOWS ON WEIGHT BIAS

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This study explored the influence of reality weight loss television shows on implicit and explicit weight bias. Reality television has capitalized on the obese epidemic by developing weight loss shows that challenge individuals to lose weight. People frequently watch shows such as The Biggest Loser; however, there is little is known about how these shows affect societal views towards people with weight problems. Seventy-seven adults completed the online study. Participants were measured on their implicit and explicit weight bias before and after watching a short video clip of The Biggest Loser. An implicit association test (IAT) was used to assess implicit weight bias. Weight bias was defined as greater tendency to associate overweight and obese people with the term "lazy" and thin people with the term "motivated" compared to overweight and obese people with the term "motivated" and thin people with the term "lazy". A Wilcoxin Signed Ranks Test showed a significant decrease in implicit weight bias after watching the video clip, z=-5.146, p<.01. There was no change in explicit weight bias, z=-.713, ns. Participants who were classified as overweight and obese compared to normal weight showed no differences in their degree of implicit or explicit bias before and after the video clip. The study provides evidence that reality weight loss television shows decrease implicit weight bias for individuals of all weight groups. Watching shows such as The Biggest Loser may lead individuals to unconsciously view overweight and obese people as less lazy than they had previously viewed them.

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B-116d

DOES PAIN MEDIATE THE RELATIONSHIP BETWEEN WEIGHT LOSS AND DEPRESSION?

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Elevated levels of pain and depressive symptoms are often observed in obese individuals, and weight loss commonly results in reduced levels of pain and depressive symptoms. However, little is known about the mechanism responsible for the beneficial impact of weight loss on pain and depression. In the current study, we hypothesized that pain mediates the relation between weight loss and depressive symptoms in obese individuals. The study sample included 249 obese women (M ± SD, weight = 96.5 ± 14.9 kg, age = 59.3 ± 6.2 years) from rural counties, who participated in an 18-month behavioral lifestyle intervention. Study measures were taken at baseline and after 18 months of treatment. Body weight was measured with a balance beam scale. Depressive symptoms were assessed with the Beck Depression Inventory II, and pain was measured with the SF 36 Bodily Pain Scale. On average, participants experienced a 7.26 ± 8.70% reduction in weight, a 3.68 ± 6.55 point decline in depressive symptoms, and a 7.91 ± 24.53 point reduction in self-reported levels of pain. Dependent t-tests demonstrated that participants experienced significant reductions in all variables, ps < .001 from pretreatment to 18 months. The Preacher and Hayes model for meditation was implemented with percent body weight change as the predictor variable, change in depressive symptoms as the dependent variable, and change in pain as the mediator variable. The mediational analysis indicated that pain significantly mediated the relation between weight loss and depression, 95% CI [.86, 6.34], p < .05. Collectively, these findings suggest the decrease in pain produced by weight loss may play a key role in the reduction of depressive symptoms that obese individuals commonly experience following weight-loss treatment.

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B-116e
EXAMINING "FOOD ADDICTION" AMONG WEIGHT-LOSS SEEKING OBESE INDIVIDUALS

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The Yale Food Addiction Scale (YFAS) was developed in response to the growing research that has highlighted similarities between obesity and substance dependence. Items in the scale are adapted from the DSM-IV criteria for substance dependence to explore if an individual is "addicted to food." While few studies have assessed the YFAS among undergraduates, healthy individuals, and binge eaters, no YFAS data exist among obese individuals specifically seeking weight loss treatment.

The present study examined YFAS scores among 178 adults at the baseline visit of a weight loss treatment trial. Participants (133 F, 123 African American) had a mean BMI of 36.06 (± 4.8) kg/m2 and age of 51.23 (± 11.7) years. Analyses examined the relationships of food addiction symptoms and "diagnosis", as determined by the YFAS, with BMI and depressive symptoms, as determined by the Beck Depression Inventory (BDI).

Results indicated that 15.2% (n=27) of participants met diagnostic criteria for food addiction according to the YFAS. There were no differences in age, gender, race or BMI between those who met criteria and those who did not. However, there was a significant difference in the BDI scores between individuals who met criteria for "food addiction" (M= 17.07) and those who did not (M=9.16; t (168) = -5.04, p<.001). Using the clinical cutoffs for the BDI, scores indicate that those with "food addiction" had an average BDI in the "mild" range and those without were in the "minimal" range.

These data suggest that "food addiction" as defined by the YFAS is prevalent among obese individuals seeking weight loss treatment and is significantly related to depressive symptomatology. Future studies are needed to determine how YFAS scores respond to weight loss treatments.

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B-116f
A SYSTEMATIC REVIEW OF THE EFFECTS OF PSYCHOSOCIAL OBESITY INTERVENTIONS ON PAIN OUTCOMES

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Background: Obesity and pain are health conditions frequently seen comorbidly in medical settings, and evidence suggests each responds to condition-specific psychosocial intervention. However, little is known about the impact of obesity treatment modalities on pain outcomes.

Methods: We conducted a systematic review of randomized controlled studies (RCT) of psychosocial interventions for weight loss and/or weight management. Rigorous inclusion criteria included overweight or obese participants (BMI > 25), randomization, use of control group, and at least one active psychosocial intervention targeting obesity where pain was measured. Extensive searches were performed in PubMed, PsychINFO, EMBASE, and the Cochrane Central Register of Controlled Trials. Hand searches of reference sections of all included studies were performed to include a maximum number of relevant studies.

Results: Of 1587 identified articles published between 1965 and 2011, 12 RCTs met inclusion criteria and were independently reviewed by five reviewers. Data was extracted and study quality measured using the PEDro Scale. Study data was examined using a narrative approach. Study interventions focused on diet and/or physical activity, alone or in combination. Study participants ranged in characteristics, but many examined older adults and/or individuals with osteoarthritis exclusively. Variability was observed in pain assessments across studies. Findings suggest that psychosocial treatments targeting diet and physical activity for weight loss may also achieve a reduction in pain intensity and/or disability.

Discussion: Though obesity and pain are commonly co-morbid, it is not well known whether weight management interventions impart any benefit for pain control. The findings of this review suggest they may, although to date few studies have systematically and rigorously examined the impact of psychosocial treatments for obesity on pain outcomes.

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B-116g
THE IMPORTANCE OF TAILORING AND PROVIDER-INITIATED EDUCATION TO PROMOTE SELF-MANAGEMENT OF CO-MORBID PAIN AND OBESITY

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Despite its high prevalence, little is known about patient-provider communications regarding co-morbid obesity and chronic pain and how these motivate patient engagement in treatment. Semi-structured interviews were conducted with 30 primary care patients to elicit perspectives about provider interactions and experience with treatment for co-morbid chronic pain and weight. Interviewees had BMI ≥ 25 and average pain intensity ≥ 4 (scale 0-10). A grounded theory approach was used to analyze interview results. Themes focused around patients' desire for more tailored interactions with providers including additional education about pain and obesity prior to treatment decision making; additional guidance applying such education to their specific circumstances; and additional support and follow-up to increase motivation for self-management and translation of skills into 'real world' environments. Patients also perceived that providers lack understanding of the difficulties managing co-morbid pain and obesity. Patients viewed relationships with providers as important to decision-making, but felt disappointed by a perceived lack of provider interest in assessing, treating, and following-up on pain and weight symptoms. Patients desired improved communication with providers, and particularly sought provider-initiated conversations regarding topics relative to pain and weight self-management. Results have important implications for clinical providers and suggest patients' value individually-tailored, supportive, and provider-initiated interactions that target skills and motivation to aid patients' pain and weight self-management.

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B-116h

A MOVE! OF THEIR OWN: AN INTERDISCIPLINARY WEIGHT LOSS PROGRAM FOR WOMEN VETERANS

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Background: Rates of overweight and obesity are on the rise increasing risk for and severity of chronic disease. As a response to this growing health problem, the Veterans Health Administration (VHA) implemented the MOVE! weight management program. Based on a recent analysis of the MOVE! program, recommended best practices include "use of a standard curriculum" and "delivery via group-based care". The purpose of this quality improvement project was to provide a group-based weight loss program tailored for women Veterans incorporating a standard curriculum of nutrition, behavioral modification, and physical activity topics. Method: Participants included 27 women Veterans across 3 cohorts of 12-week groups. Mean age was 51.8 years (SD =10.2), most were White (62.9%), and starting mean BMI was 38.9 (SD=7.6). Facilitators included a dietitian and health psychologist who presented on nutrition, behavior modification, and physical activity topics. Results: Participants lost on average 1.08% body weight. We compared weight at start of group (M = 226.5, SD = 47.8) and completion of group (M = 223.8, SD = 46.3) with a paired-samples t-test. Group participants weighed significantly less following the intervention, t (25) = 2.41, p = .023. Participants reported that they were making healthier food choices (more fruits and vegetables, less sweets), deciding to use good behavior (smaller plates, read food labels) and increasing physical activity (walking with pedometer, joining gym). Discussion: There was a modest weight loss observed over the 12-week program. Participants reported engaging in healthier behaviors. Our participants required attention to emotional eating and increased accountability for behavior modification. These adaptations were essential to meeting the needs of our population. We will continue to follow participants' weights to compare outcomes with national MOVE! outcomes.

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B-116i

PREDICTING THE OUTCOME OF BARIATRIC SURGERY EMPLOYING THE TAYLOR JOHNSON TEMPERAMENT ANALYSIS

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There are over 200,000 bariatric surgeries per year done in the United States with a weight loss failure rate of between 20 and 60% based on the patient's subsequent behavior. Psychological factors that aid in pre-surgical screening, and help reduce the failure rate, are needed. However, numerous attempts to identify personality factors predicting bariatric surgery success have generally been inconclusive. The present paper is a report of an initial sample in process of being collected from a large archive. Instead of inspecting psychopathological factors, the most common psychological assessment employed in bariatric prediction, the present study employs the Taylor Johnson Temperament Analysis, (TJTA), to predict weight loss success after surgery. In the initial sample of 106 consecutive patients, followed for up to 3 years after surgery, 4 of the 9 TJTA scales correlated significantly with both absolute, and percent of weight loss. A composite scale correlated 0.439 p<.001 with absolute weight loss and 0.397 p>.001 with percent of weight loss. Specifically, the more successful patients were less light-hearted, more sympathetic, more tolerant, and less self-disciplined. Since both bypass (55) and lap band (44) surgeries were performed, an initial analysis by surgery type was inspected, and preliminary data indicates that each surgery type has a somewhat different pattern of TJTA which predicts weight loss. One finding is that lower anxiety (composed/anxiety scale) predicts bypass success while increased anxiety predicts lap band success. Initial data also indicates that the outcome by traditional grouping of success, failure to lose, and loss-regain categories needs to be analyzed in relation to TJTA scales; however the present success rate in this study's population of 83.7% leaves too few failures to analyze by groups until more data is collected.

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B-116j

WEIGHT GAIN STATUS AND CHANGES IN MINDFULNESS, INTUITIVE EATING, AND FOOD PRESENCE APPETITE URGES IN ETHNICALLY-DIVERSE FIRST-YEAR COLLEGE WOMEN

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Public health scientists have designated the first year of college to be a critical period of heightened risk for unhealthy body composition changes among emerging adults. Existing research has primarily focused on evaluating the contribution of disordered eating patterns to enhancing first-year weight gain with inconclusive results. Research has yet to determine whether first-year students differing in weight gain status are distinguished by shifts in the following processes: 1) a more generalized adaptive self-regulatory orientation (i.e. mindfulness: MF), 2) a constructive interoceptive approach to guide appetite awareness and food intake (i.e. intuitive eating: IE), and 3) the influence of external situational cues on amplifying appetite urges (i.e. the presence of palatable food: FP). Accordingly, the present pilot study sought to address these objectives in a sample of 134 Black/African American (B/AA: N = 54) and White/European American (W/EA: N = 80) first-year females attending a large urban public university. Students completed self-report questionnaires assessing the constructs of interest at the beginning of the fall and spring semesters of their first year. BMI derived from measured heights and weights were also collected. MF and IE were positively correlated at both T1 (r = .28) and T2 (r = .33). IE was negatively associated with FP at T1 (r = -.34) and T2 (r = -.33) and with BMI at T1 (r = -.21) and T2 (r = -.37). Sixty-four percent of the 83 completers (47% B/AA) experienced an increase in BMI across the first college semester. BMI gainers (N = 53) demonstrated larger declines in IE (p = 0.005) and lower IE values at T2 (p = 0.02) relative to non-gainers (N = 30). Additionally, BMI gainers possessed marginally-higher levels of MF at baseline (p = 0.06). Implications of these preliminary results for informing healthy first-year weight management promotion initiatives are discussed.

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B-116k

A WAIT-LIST CONTROLLED CLINICAL TRIAL OF A MINDFULNESS-BASED EATING INTERVENTION IN A WORKPLACE SETTING

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The current study tested a novel intervention among community women of all ages to address concerns related to food, body image and eating. This 10-week worksite-based intervention (Eat for Life) combined a mindfulness-based approach and the principles of intuitive eating to cultivate a sustainable, internally-oriented approach to eating and using the experiential, self-regulatory training in mindfulness practice. This study assessed the efficacy of a non-diet intervention approach for obesity, eating concerns, and eating disorders.

This nonrandomized wait list control study included 124 female employees at a Midwestern university (Mean age: 45, Age range: 21 to 67) recruited through the university wellness program. Most participants were symptomatic at baseline with respect to eating disorders (41%, N=51). The majority of participants were moderately obese (39%, N=48). Participants in the intervention and control groups were administered questionnaires at pre and post-ten week intervention or control. Questionnaires included the Questionnaire for Eating Disorder Diagnoses, Five-Facet Mindfulness Questionnaire, Body Appreciation Scale, and Intuitive Eating Scale. The intervention group met for 1.5 hours for 10 weeks.

There were no significant baseline differences between groups on demographic or dependent variables. At post-ten weeks, one-way between-groups ANCOVAs indicated significant differences between groups on scores for body appreciation F(1,121) - 40.17, p<.01, intuitive eating F (1, 121) = 67.44, p < .01, and mindfulness F (1, 121) = 30.50, p < .01. Mindfulness was found to partially mediate the relationships between group and the other dependent variables. Taking into account baseline differences, participants in the intervention group demonstrated significantly greater odds of being asymptomatic at ten weeks than those in the wait-list control group (odds ratio 3.65, p < .01).

Eat for Life is a promising intervention for addressing the eating and body issues in a heterogeneous sample of women in the workplace.

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B-135a

HEALTH CARE CONNECTIONS: ASSESSING COMMUNICATION NETWORKS & KNOWLEDGE OF THE AFFORDABLE CARE ACT IN A SOCIOECONOMICALLY DISADVANTAGED POPULATION

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Socioeconomically disadvantaged populations stand to benefit greatly from the 2010 Patient Protection and Affordable Care Act (ACA), which will provide Medicaid or subsidized insurance coverage for the lowest-income Americans. Yet to see value from the ACA, these individuals will need to be aware of how the law will benefit them, know their eligibility for benefits, and enroll in an appropriate plan. The purpose of this study was to explore knowledge and attitudes of the ACA in a low-income population and to investigate sources of this knowledge and related communication by mapping social and communication networks. Participants were recruited from an information and referral hotline (United Way 211 Missouri) that reaches predominantly low-income and racial/ethnic minority callers with unmet basic needs. A telephone survey assessed personal social support and communication networks, as well as knowledge, attitudes, and personal relevance of the ACA, health care access, sources of health- and ACA-related information, political participation, and social capital. Preliminary results (n=277) show those who score higher on ACA knowledge are more likely than low scorers to have positive attitudes toward the ACA, feel it is personally relevant, and get information on the ACA from TV & radio, family & friends, the Internet, and 211 (all p<.05). The ACA communication networks of higher scorers have members with greater perceived expertise on the ACA (p=.03), closer relationships to the participant (p=.02) and are more similar to the participant sociodemographically (p<.01) and in values and experiences (p=.01) than the network members of those with lower ACA knowledge scores. Trusted interpersonal sources and social services such as 211 may serve as avenues of information dissemination about ACA benefits to low-income Americans. Through a better understanding of communication networks in and knowledge of the ACA among this population, we can inform interventions and shape policy to disseminate knowledge of the ACA.

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B-135b

SELF-RATED HEALTH, STRESS, LIFESTYLE, AND BODY SIZE IN ADOLESCENTS

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Data suggests that self-rated health (SRH) may provide insight into indices of health and well-being. This study explored whether stress, lifestyle habits, waist circumference (WC), and body mass index (BMI) varied as a function of SRH in adolescents. 784 ethnically diverse adolescents (mean age 15.1 yrs, SD = 1.3; 64% girls; 14.9% Black, 20.6% White, 54.2% Hispanic, 10.3% Other) visited an interactive science museum exhibition on cardiovascular health. SRH ratings, stress, WC, BMI, and lifestyle habits were measured at the exhibition. Adolescents rated their health as excellent (12.9%), very good (24.8%), good (38.7%), fair (19.5%), or poor (4.1%). Stress ($F(4, 778) = 15.5$, $p < .001$), WC ($F(4, 774) = 9.3$, $p < .001$), and BMI ($F(4, 777) = 21.3$, $p < .001$) varied by SRH. Post-hoc comparisons showed that those who rated their health as excellent reported lower stress than those who did not (ps < .05). WC and BMI were higher in those with poor SRH compared to the other SRH groups (ps < .05). Daily fruit ($F(4, 778) = 12.7$, $p < .001$) and vegetable ($F(4, 778) = 7.3$, $p < .001$) intake, TV/computer use ($F(4, 778) = 6.3$, $p < .001$), number of days per week of exercise ($F(4, 778) = 19.5$, $p < .001$), and time spent in moderate exercise ($F(4, 777) = 18.8$, $p < .001$) also varied by SRH. Participants with very good and excellent SRH had a better diet, were less sedentary, and were more physically active than those with lower SRH (ps < .05). Consistent with other studies, these findings suggest that a simple self-rating of health can provide important information about health and well-being in adolescents. Higher stress, poorer lifestyle habits, and higher WC and BMI were associated with lower SRH. It remains to be clarified whether improving these risk factors will affect SRH. Efforts need to be directed at understanding the role of SRH in adolescents since SRH remains moderately stable into young adulthood and is a predictor of morbidity and mortality in adults.

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B-135c

IMPACT OF EXERCISING AND DRINKING ON HEALTH BEHAVIORS AND HEALTH PERCEPTIONS IN A COMMUNITY SAMPLE OF ASIAN AMERICANS

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Major Purpose:
Past studies have shown that individuals who engage in more physical activity tend to adopt other positive health habits, i.e., individuals who exercise may be more likely to use and be aware of health services (e.g., physical checkups) (Langlie, 1979). Research has also shown that individuals who consume alcohol and have long-term exposure to alcohol often experience serious health consequences (Wechsler et al., 1994). Yet, little is known about the potential impact of exercise and drinking on health behaviors (i.e., health engagement, health status, health activity, health care) in an Asian population.

Method:
Our sample consisted of 408 participants (180 men and 228 women) recruited from Southeast Michigan (29.7% 18-39 years old, 39.9% 40-60 years old, 29.5% 61 or above; 22.7% Asian Indian, 19.3% Chinese, 19.8% Filipino, 19.1% Korean, 18.1% Vietnamese).

Results:

Independent samples t-test for all variables were computed. Results show that Asians who exercised regularly were significantly less likely to have regular physical checkups or care about the quality of their health care than Asians who did not exercise regularly. They were also significantly more engaged in health related activities in their social environment. Results also show that there was no significant difference between Asians who did not drink and those who did drink in health engagement, health status, or ideas of health care.

Conclusions:
We found significant differences in Asians who exercised and did not exercise in categories of health engagement, health activity, and health care, but not in regard to health status. It may be that Asians believe only in keeping themselves healthy, without the need to seek health professionals. Overall, among Asians who drink and do not drink, we found little difference in health outcomes. Taken together, our findings point to the possible importance of educating Asians on the importance of both exercising and seeking health professionals on a regular basis.

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B-135d

INTRA-INDIVIDUAL VARIABILITY IN DOMAIN-SPECIFIC COGNITION AND RISK OF DEMENTIA

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Intra-individual variability among cognitive domains may be an independent predictor of dementia. A battery of 7 cognitive tests was administered to assess the domains of verbal knowledge, verbal fluency, figural memory, verbal memory, attention/working memory, spatial ability, and fine motor speed in 2,304 women (mean age 74 years) enrolled in an ancillary study to the Women's Health Initiative randomized clinical trial of hormone therapy conducted at 14 US academic medical centers from 1999 - 2007. Women were evaluated annually for probable dementia and mild cognitive impairment for an average of 5.9 years using a standardized protocol. Proportional hazards regression showed that lower baseline domain-specific scores significantly predicted probable dementia ($N = 61$) and any impairment ($N = 127$) (all p's < .05), as did the intra-individual standard deviation among all test scores. This latter association was driven by verbal memory: a one standard deviation decrement in verbal memory relative to the average of the 7 standardized test scores independently predicted the risk of probable dementia ($HR = 3.7$; $p < .001$). Decrements in overall and domain-specific cognition predict incident dementia. Intra-individual variability among cognitive domains showing decrements in verbal memory relative to overall cognitive function indicates greater risk of dementia independent of individual test scores.

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B-135e

MENTAL HEALTH PROVISION ON PALLIATIVE CARE SERVICES: RESULTS OF A NATIONAL SURVEY

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Palliative care consult services have emerged as an additional way to provide symptom-relief to patients faced with life-limiting illnesses. Research supports that patients treated by these services experience a wide range of mental health concerns including depression, anxiety, delirium, substance abuse, grief, and existential issues. The current study was designed to understand how the mental health needs of patients are currently being addressed by palliative care services across the United States. Participants included 260 palliative care program directors who responded to an electronic survey distributed to the National Registry maintained by the Center to Advance Palliative Care. The majority of respondents worked at either non-profit academic medical centers or community hospitals with the majority of services receiving between 200 and 1000 consults per year. Respondents were equally distributed across the four major regions of the United States. It was relatively rare for a palliative care service to employ either a psychiatrist (8%) or a psychologist (20%) as part of their team; although some programs reported that they were able to interact with professionals from these disciplines as external consultants. Services were much more likely to employ nurse practitioners (68%), social workers (70%), or chaplains (65%) on either a part-time or full-time basis. Some palliative care services were able to offer additional programs aimed at improving the quality of life of their patients including music therapy (7%), art therapy (3%), and pet therapy (6%). Forty-five percent of respondents either strongly agreed or agreed when asked if they felt that their patients' mental health needs were being well-addressed under their current set-up. Although many program directors are generally satisfied with their current level of care, most reported a desire for additional help in addressing the mental health needs of their patients.

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B-135f

PHYSICIANS' CONCEPTUALIZATION OF "CLOSURE" AS A BENEFIT OF PHYSICIAN-PARENT FOLLOW-UP MEETINGS AFTER A CHILD'S DEATH IN A PEDIATRIC INTENSIVE CARE UNIT (PICU)

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Our prior research suggests physicians believe gaining closure is a benefit of physician-parent follow-up meetings after a child's death. However, most bereaved parents do not seek closure in relation to their child's death. Physicians' beliefs about bereavement may affect interactions with bereaved families; thus, we sought to better understand physicians' conceptualization of closure. We performed a content analysis of previously conducted interviews with 67 PICU physicians affiliated with the CPCCRN. We searched interview transcripts for all occurrences of closure and the context in which they occurred. We developed categories of physicians' uses of closure, then independently coded each occurrence of closure for whether it fit into each category. Finally, we conducted a frequency count of the occurrences of closure in each category. Thirty-eight (57%) physicians used closure at least once (median=2, range=1-7), for a total of 86 occurrences. Of these, 69 (80%) referred to parents, 11 (13%) to physicians, 5 (6%) to both, and one not specified. Fifty-three (62%) occurrences were used with a modifier indicating physicians' belief that closure is a process or spectrum rather than an achievable goal. Physicians described pathways to closure for parents and physicians that can occur during follow-up meetings, including understanding the causes and circumstances of the death and reconnecting or resolving relationships between parents and health professionals. Many physicians believe both parents and physicians need closure after a child's death and that providing an opportunity for closure is a primary reason to conduct follow-up meetings. Future research should evaluate whether these beliefs affect care for bereaved parents and whether follow-up meetings can reduce the negative effects of bereavement for parents and physicians.

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B-135g

THE WONDER YEARS: THE IMPACT OF SELF-RATING OF HEALTH ON COMPARATIVE HEALTH ASSESSMENTS AMONG OLDER ADULTS

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Introduction: Self-assessed health (SAH) is a strong predictor of mortality, regardless of format (i.e. self or comparative). We hypothesized that the effects of comparative health (CH) on mortality are mainly due to the influence of self-judgments (i.e., SAH) on comparative ones. The present study examined the degree of similarity between SAH, CH and the factors that account for differences between judgments. We sought to determine whether person-related and emotional factors (e.g., trait affect, optimism, and pessimism) could explain the differences between the two judgments (i.e. difference scores). Finally, we examined whether these factors and individual differences in functional limitations influenced CH above and beyond SAH. Method: Data were obtained from 851 older adults (M = 73 years) enrolled in a larger, longitudinal study. All-cause mortality was tracked for 10 years for all participants. Results: Both judgments showed a high degree of consistency (Krippendorff's $\alpha = .73$). CH was a predictor of mortality (HR = 0.83, $p = .034$), but only until SAH was added into the model (HR = 0.95, $p = .673$). When included together, the impact of SAH on mortality was still strong (HR = 0.80, $p = .059$). Of all the factors assessed, only participants' age was associated with difference scores. CH of older participants was more likely to be higher than their SAH ($B = -.09$, $t = -2.05$, $p = .041$).

Finally, after controlling for SAH, CH judgments were influenced by trait positive affect (B = .17, t = 5.34, p < .001), functional limitations (B = -.19, t = -.64, p < .001), and fatigue (B = -.138, t = -4.57, p < .001). Discussion: Consistent with social psychological theory, CH judgments reflected self-knowledge. The data revealed that none of the psychological factors examined predicted differences between judgments. Older participants are more likely to base their CH on mobility, energy, and positive attitude, which may be an inaccurate measure of health.

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B-135h

HEALTH AND HEALTH BEHAVIOR DIFFERENCES IN A NATIONALLY REPRESENTATIVE SAMPLE OF VETERAN, MILITARY, AND CIVILIAN MEN

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Objective: To compare health status across male Veterans (N=53,406), active duty service members (N=2,144), those who served in the National Guard/Reserve (NG/R) (N=3,724) and civilians (N= 110,116). Data were from the 2010 Behavioral Risk Factor Surveillance System.

Results: Multivariate logistic regression results are presented. Despite better healthcare access, Veterans experienced poor health status, functional limitations, and lifetime conditions (e.g., cardiovascular disease, arthritis, cancer) more frequently than civilians. Veterans were more likely than NG/R men to report functional limitations, frequent poor physical health, and lifetime depression. Veterans were more likely than active duty men to report diabetes. Current smoking and heavy alcohol use was higher among Veterans (vs. NG/R and civilians), as was lack of exercise (vs. active duty and NG/R).

Disproportionate health issues were identified for military subpopulations as well. NG/R had higher obesity, diabetes, and cardiovascular disease (vs. active duty and Veterans, active duty, and civilians, respectively), and were the least likely to be insured. Active duty men were more likely to report current smoking and heavy alcohol consumption (vs. civilians and NG/R), and reported more smokeless tobacco use than civilians.

Conclusions: Veterans have poorer health and health behaviors. Although VA is well-suited to address this, only 37% of Veterans are enrolled in VA, so community organizations and providers must be aware of their disproportionate disease burden and high engagement in health risk behavior. Those who have served in the NG/R should be identified and targeted to promote cardio-metabolic health. Such interventions need to account for the poorer healthcare access in this population. Despite good health, active duty men reported higher engagement in health risk behavior, indicating a critical area for enhanced prevention efforts from the Department of Defense.

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B-135i

THE RELATIONSHIP OF YOGA AND HEALTH: HOME PRACTICE MAY BE THE KEY

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Study purpose: to describe yoga practice and health characteristics (mindfulness, subjective well-being, diet, BMI, smoking, alcohol/caffeine consumption, sleep, fatigue, social support, and physical activity) of yoga practitioners and to examine relationships of yoga practice (years of practice, and frequency of classes/home practice) with aspects of health. Cross-sectional, anonymous internet surveys distributed to 4307 randomly selected individuals from 15 US Iyengar yoga studios (n = 18,160); 1045 (24.3%) surveys completed. Measures: Freiberg Mindfulness Inventory, Mental Health Continuum (subjective well-being), Multi-factor Screener (diet), PROMIS sleep disturbance, fatigue, and social support, International Physical Activity Questionnaire. Results: Age: 19 to 87 years (M = 51.68 + 11.7), 84.2% female, 89.2% white, 87.4% well educated (> bachelor's degree). Years of yoga practice: <1-25+ (M = 11.38 + 7.52). Classes/month: 0-28 (M = 6.08 + 5.06). Days of home practice/month: 0-28 (M = 12.15 + 9.68). 60% reported 1+ chronic/serious health conditions, yet most reported very good (46.3%) or excellent (38.8%) health. Participants agreed yoga has improved health, particularly: energy (84.5%), happiness (86.5%), social relationships (67%), sleep (68.5%), and weight (57.3%). BMI = 12.1- 49.4 (M = 23.08 + 3.9); 4.9% were obese (BMI ≥ 30). Frequency of home practice predicted health including: mindfulness (β = .106, p <.001), subjective well-being (β = .183, p <.001), BMI (β = -.043, p <.001), fruit and vegetable consumption (β = .031, p <.001), vegetarian status (r = .162, p <.001), and sleep disturbance (r = -170, p < 0.01).Conclusion: Yoga is potentially an important therapeutic tool. Individuals who practice yoga are not necessarily healthy at the outset. Home practice was more important than years of practice or class attendance in predicting aspects of health. Emphasis needs to be placed less on delivery of interventions and more on making healthy interventions such as yoga part of one's daily life.

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B-144a

THE ROLE OF SELF-EFFICACY IN PREDICTING IMPROVEMENT IN PAIN AND DISABILITY IN INDIVIDUALS SELF-SELECTING YOGA OR PHYSICAL THERAPY FOR TREATMENT OF CHRONIC BACK PAIN

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Chronic low back pain (cLBP) is a difficult to treat condition. Evidence suggests psychosocial factors contribute more to treatment outcomes than do physical factors. Yoga has been shown to be safe and effective in reducing pain and disability in individuals with cLBP similar to conventional, individualized physical therapy (PT). This study examined the role of self-efficacy (SE) in predicting improved cLBP outcomes in individuals self-selecting PT or yoga for treatment. A second aim was to determine any demographic or treatment selection differences between the groups.

Adults >18 yrs (n=53) with cLBP > 12 weeks were recruited from a hospital-based clinic offering 6-week, once weekly, 2-hr Integral yoga classes for cLBP (n=27) and two out-patient PT clinics providing twice weekly 1-hour individualized, exercise-based PT (n=26). Data were collected at baseline and 6 weeks. Outcomes included disability (Roland Morris Disability Questionnaire), health status (Rand SF-36 v. 1.0), pain (numerical rating scale) and self-efficacy (Back Pain Self-Efficacy Scale). Groups were compared using Chi-square, independent samples t-tests, and hierarchical linear regression.

Results: Controlling for baseline group differences, self-efficacy (SE) was the strongest predictor for reduced pain and higher function for the entire sample. A significant group interaction x baseline SE effect was found to predict disability at 6 weeks (p <.001). PT participants with low SE reported significantly greater disability than those with high pain SE. However, yoga participants with low baseline SE had similar improvements in disability as did those with high SE.

These findings support self-efficacy predicts improved cLBP outcomes. The group x SE interaction suggests yoga moderates SE effects on disability leading to greater improvements in cLBP. Therefore, yoga prior to PT may reduce cLBP treatment failures.

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B-144b

HIGH FREQUENCY HEART RATE VARIABILITY (HF-HRV) AND PAIN TOLERANCE IN A MULTI-ETHNIC SAMPLE

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Pain associated with injury and chronic illness is one of the leading contributors to health care utilization worldwide. The complex interactions between physiological and psychological factors involved in pain tolerance are not well understood. Our understanding of the complexity diminishes as factors such as ethnicity and culture are included in the conceptualization (e.g. Edwards et al, 2001). It is well established that people of different ethnic backgrounds possess unique attitudes, perceptions and reactions to pain; yet whether differences in the physiological processing of pain between ethnic groups exists remains uncertain. Heart Rate Variability (HRV) is a physiological measure which has been linked to poor health outcome and reduced ability to adjust the cardiovascular system to meet situational demand. Importantly, reduced HRV during rest has been associated with poor emotional, autonomic and cognitive functioning. Changes in HRV have been interpreted as a window into the bi-directional feedback pathways between prefrontal cortical areas and lower hindbrain autonomic centers (e.g. Thayer et al, 2011). An experimental investigation was conducted to explore the relationship between HRV and pain tolerance in three major ethnic groups in New Zealand. High Frequency HRV (HF-HRV) was assessed at rest and during a painful hand emersion cold-pressor task in a sample of Maori, Pacific Island and European participants. Pain tolerance was defined as the length of time subjects could leave their hand in the cold water. Results revealed that there were no significant differences in pain tolerance as a function of ethnic group. However, there was a significant correlation between baseline HF-HRV and pain tolerance ($r = .33$, $p < .05$), indicating that higher baseline HF-HRV is associated with higher levels of pain tolerance. These data provide a useful starting point to examine the relationships between HRV and pain related phenomenon.

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B-144c

SICKLE CELL DISEASE PAIN AND MOOD: FINDINGS FROM A DAILY DIARY STUDY

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The experience of pain among adults with SCD is not well characterized in the research literature. Little is known about its temporal nature and even less about its relationship to important health outcomes. We utilized a daily diary methodology to assess variability in disease-specific pain among a sample of adults living with SCD.

A small cohort of adult SCD patients completed a diary for 21 consecutive days via a secure, Internet-based platform. The diary included questions about pain and mood. We employed Generalized Estimating Equations (GEE) to investigate the association between these two indices.

Twenty-nine adults (24 female; 27 African American) agreed to participate in the study. Participants ranged in age from 19 to 52 years (mean age = 29.2 years) and were relatively well educated, with nearly 48% of the sample holding at least a bachelor's degree. The majority of participants (75.9%) were diagnosed with homozygous HbSS. Participants completed 507 of 609 possible patient-days (83.25% completion rate). Preliminary findings demonstrated that participant reports of pain on a given day were significantly associated with same-day mood ratings. Across all participants, days on which high levels of pain were reported were 0.4 times as likely to be associated with positive mood and 8.2 times more likely to be associated with negative mood compared to days on which low levels of pain were reported.

Our findings suggest that a robust association between SCD pain and mood exists such that significantly higher levels of negative mood (and lower levels of positive mood) are reported on days characterized by more severe pain. Future studies should: (a) explore whether pain or mood is the initiating variable in the pain-mood relationship; and (b) assess these associations over a longer period of time.

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B-144d

PAIN CHARACTERISTICS, PSYCHIATRIC STATUS, AND TREATMENT UTILIZATION OF VETERANS PARTICIPATING IN A TELEPHONE-BASED PRIMARY CARE INTERVENTION FOR DEPRESSION

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Major depression is one of the most prevalent and debilitating illnesses in the VA health care system, with most patients being treated within the primary care setting. Translating Initiatives for Depression into Effective Solutions (TIDES) is a telephone-based primary care intervention that has been shown to decrease symptom severity and improve functional status in veterans with depression. However, depression and chronic pain are highly comorbid and research has yet to examine the impact of pain on primary care interventions for depression. The purpose of this study was to examine the pain characteristics, psychiatric status, and treatment utilization of veterans participating in a primary care depression management program. This study utilized a retrospective chart review of patients enrolled in TIDES at a Midwestern VA from 2009 to 2010. Eight-five veterans were initially screened and 77 met criteria for Major Depression. Most of the veterans were male (92.2%) and Caucasian (89.2%), with a mean age of 59.5 (SD = 11.2). Nearly two-thirds (64.5%) had a chronic pain disorder. The most common diagnoses were back pain (38.8%) and osteoarthritis (22.4%), with a mean duration of 9.8 years (SD= 11.5) and mean intensity of 5.8 (SD = 1.7; 0=no pain; 10=worst pain). There were no differences between veterans with and without pain on demographic variables, tobacco use, or BMI. However, veterans with pain had more non-pain related medical conditions (8.5 vs 5.8, p<.05), more ER visits (1.3 vs 0.4, p<.05), and more polypharmacy (91.2% vs 60%, p<.05). They also had more outpatient mental health visits (9.3 vs 3.8, p<.05) and higher depressive scores on the PHQ-9 (16.1 vs 13.5, p<.05). Veterans with comorbid chronic pain and depression appear to have higher depressive severity, more medical conditions, and higher treatment utilization. Therefore, comorbid chronic pain may affect the outcomes of primary care interventions for depression and should be considered during the development and evaluation of these programs.

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B-144e

COUPLES' AGREEMENT ABOUT PATIENT CHRONIC PAIN AND CATASTROPHIZING: DO DISCREPANCIES PREDICT PARTNER BEHAVIOR?

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PURPOSE. To determine whether patient-partner disagreement about patient pain and catastrophizing is associated with solicitous and negative partner behavior. METHODS. Chronic pain patients (N = 52) completed questionnaires about pain, catastrophizing, and perceived partner behavior in response to their pain. Romantic partners completed parallel questionnaires. Agreement scores for pain and catastrophizing were calculated by subtracting patient scores from partner scores. They were defined a priori: agreement (within ± half a Standard Deviation), overestimation (>half a Standard Deviation), and underestimation (<half a Standard Deviation). Regression models were used to examine if patient-partner discrepancies would predict patient-perceived and partner-reported behavioral responses. RESULTS. Partners who overestimated pain, reported more solicitous (t = 3.31, p = .002) and fewer negative responses (t = -2.60, p = .012) than partners who agreed with the patient. Discrepancies in pain perception were not associated with perceived partner behavior. Partners who underestimated patient catastrophizing reported fewer negative responses (t = -2.16, p = .036) than partners who agreed with the patient. For partners who overestimated patient catastrophizing there was a trend to report fewer solicitous responses (t = -1.92, p = .061) than for partners who agreed with the patient. There was a trend that patients perceived more solicitous responses when their partners underestimated catastrophizing (t = 1.95, p = .057) than when they agreed with the patient. The same pattern of associations remained evident after statistically controlling for gender, disease duration, and relationship length. CONCLUSIONS. In order to understand the social implications of chronic pain, it is important to include family members' perspectives on patients' mental and physical well-being. Disagreement between family members predicts what kind of behavior partners report toward the patient.

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B-162a

FEASIBILITY OF LIFEBALANCE STATION®, A RECUMBENT ELLIPTICAL DESK WITH HEIGHT ADJUSTABLE DESK, FOR REDUCING OCCUPATIONAL SEDENTARY TIME

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Background. Prolonged sedentary behaviors are associated with many deleterious health outcomes. Adults spend more than 50% of their wakeful day in sedentary behaviors, much of which is done at work. Introducing devices designed to decrease occupational sedentary time may improve employee health. The purpose of this study is to test the feasibility of LifeBalance Station (LBS), a recumbent elliptical machine paired with a height adjustable desk, for reducing occupational sedentary time.

Methods. Forty-five adults (42.9+10.5 years; BMI=28.8 ± 7.4 kg/m2, 73% female) working in full time (41.6+3.2 hrs/week), sedentary (sitting 80.0% working time) occupations were recruited. Participants were asked to use the LBS for 30 minutes in a controlled laboratory setting while performing their usual work tasks (e.g., typing, mousing, phone). Participants then completed a 24-item, 5-point Likert scale (1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree) feasibility questionnaire to assess their experience with the LBS.

Results. Participants reported "LBS could easily be used in the typical office work setting" (4.4+0.7) and "I would be less sedentary at work if provided access to an LBS" (4.6+0.9). Neither work productivity (2.0+1.0) nor work quality (2.0+0.9) decreased while using the LBS. When asked "How often would you use the LBS if provided one in your private office space?", 96% of participants reported they would use the LBS "daily".

Discussion. Findings from this pilot study suggest these full-time, sedentary employees found the LBS as a feasible option for reducing sedentary occupational time. These findings hold public health significance due to the growing number of sedentary jobs in the U.S. Future studies that test the efficacy of the LBS for reducing sedentary time and improving health outcomes are warranted.

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B-162b

CHANNELS AND TYPES OF SOCIAL INFLUENCE ASSOCIATED WITH ADOLESCENTS' HEALTH-RELATED PHYSICAL ACTIVITY IN STRUCTURED ACTIVITY SETTINGS

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Considerable research has reported a positive association between social influence and adolescent physical activity (PA) behavior (e.g., Biddle et al., 2011). However, most studies have tended to focus either on the types (e.g., social support) or channels of influence (e.g., peers). To broaden our understanding, it may be informative to consider the interplay between the social influence channels and types that are most salient to activity in this population. This study examined the social influence channel/type combinations that differentiated youth who were active enough for health benefits versus those who were not. Focusing on individuals active enough for health benefits should inform the design of interventions focused on promoting health-related PA. Using an open-ended response format, adolescents (N = 563) reported the social influences they received for being active in the structured setting. They also indicated PA levels in this setting using the modifiable activity questionnaire for adolescents (Kriska et al., 1990), and then were classified as either active enough for health benefits (high active, >8KKD) or not (low active, <2 KKD). Results indicated that participants identified three salient channels (family, friends, significant others) and types of influence (conformity, compliance, obedience). In terms of the reporting of the presence or absence of channel-type influences, results from a logistic regression predicting those active enough versus not revealed that receiving requests (compliance) from both peers and significant others predicted membership in the group active enough for health benefits (both p's < .001). These findings reinforce the importance of considering the interplay of the channels and types of social influence (e.g., compliance was associated with peers and significant others, but not family) and also identify that a request from others to be active may be an important source of influence that, to date, has received little attention in the literature.

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B-162c

PRELIMINARY RESULTS OF A MINDFULNESS AND ACCEPTANCE BASED INTERVENTION FOR INCREASING CARDIORESPIRATORY FITNESS IN SEDENTARY ADULTS

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The aim of this open clinical trial was to demonstrate the feasibility and efficacy of a mindfulness and acceptance based intervention for increasing cardiorespiratory fitness (CRF) in sedentary adults through adherence to a fitness walking program. Previous studies have found CRF to be an independent predictor of all cause, cardiovascular, type-2 diabetes, and cancer related mortality in men and women. In this 10-week trial, men and women (N=24) who were classified as sedentary engaged in a fitness walking program, while attending regular group therapy sessions, whose content was based primarily on Acceptance and Commitment Therapy (ACT). CRF was estimated with baseline and post intervention field testing, using the Rockport One-Mile Walk test. Paired sample t-tests were used to find mean change (baseline to post-intervention) scores for measures of estimated CRF and psychological flexibility. Analyses indicated a significant and large-sized decrease in total walk test time [t(18) = 4.61, p = .0002, d = 0.64], with a mean decrease of 64.69 seconds. A significant and medium-sized increase in estimated V02max [t(18) = -4.05, p = .0007, d = -0.43] was also evidenced, with a mean increase of 2.9 ml/kg/min. Additionally, analyses indicate a non-significant, medium-sized increase in general psychological flexibility and decrease in experiential avoidance as measured by the AAQ-II [t(18) = 1.18, p = .581, d = 0.35], but a significant and large-sized increase in psychological flexibility and decrease in experiential avoidance of exercise-related internal experiences as measured by the PA-AAQ [t(18) = -9.19, p < .0001, d = -2.09]. Finally, feasibility and acceptability of the intervention was demonstrated through high levels of adherence to the walking program and group attendance, as well as measures of self-reported and objective comprehension. Consistent with previous trials, this study demonstrated the usefulness of mindfulness and acceptance based contextual therapies in the field of behavioral medicine, particularly with health behavior change.

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B-162d

RECALLING DAILY SEDENTARY ACTIVITIES USING SELF-REPORT

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Finding a valid and reliable means through self-report instrumentation to get an account of a subject's sedentary behavior is important for intervention planning. The purpose of this study was to establish the concurrent validity of a self-report measure of daily sedentary activities among adults, using the Daily Activity Recall (DAR). Participants wore the accelerometers continuously for 3 consecutive days so they could accommodate to wearing the accelerometer and reduce reactive effects. Subjects were asked to engage in their regular lifestyle activities during this time period. They did not know that they would be asked to recall their bouts of activity at the end of the three days. The DAR was completed in a laboratory setting where the subjects were all read approved directions and asked to complete the instrument. Sixty-two participants provided usable data. The Actical stored activity counts at one minute epochs. These counts were converted to MET's using regression equations developed by Heil et al. The DAR data was also converted to MET's using the Compendium of Physical Activities Tracking Guide. Results indicated that subjects could accurately recall sedentary time. The relationship between MET equivalents from the self-report and the criterion variable, the accelerometer, was 0.82 across all 62 subjects' self reported sedentary time. Correspondence of DAR ratings of sedentary time and Actical data classification of sedentary time (87%) indicated that subjects could consistently recall activities at that they were sedentary. For activities the accelerometer classified as sedentary but were miss classified by the DAR, 8% were reported as Very Light on the DAR and 5% were reported as Moderate on the DAR. Sedentary behaviors most commonly reported for the day were computer time (Mean =2.45 hrs/subject), television watching (Mean =2.25 hrs/subject), and movies/listening to music (Mean = .98 hrs/subject). It appears from this data that subjects can accurately recall sedentary time across the previous day.

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B-162e

A TEST OF THE FLOW THEORY OF INTRINSIC MOTIVATION FOR EXERCISE ADHERENCE

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The purpose of this study was to test the flow theory of exercise adherence. Flow theory posits that exercise can be intrinsically rewarding if the experience of self / time transcendence and control / mastery is achieved during performance. Csikszentmihalyi's research suggests that adherence to behaviors including: rock climbing, group drinking, playing music, and work performance are related to flow. Flow for exercise adherence is defined as the perception of self/time transcendence and control/mastery during exercise. It was hypothesized that higher levels of Flow during exercise will be associated with exercise adherence rates. The first step was to test the validity and reliability of the Flow for Exercise Adherence Scale (FEAS). FEAS items were refined through three rounds of expert panel review for face and content validity. The FEAS was administered to 445 young adults (age range 19 - 28). The subjects completed the FEAS twice during a seven day period. Free living exercise was then prospectively tracked for 4 weeks using the 7 day recall developed by Petosa. The 7 day recall has established validity and assesses vigorous exercise in terms of mode, duration and day of the week. Exercise stage of change was measures using an instrument developed by Markus and Simkin. Confirmatory factor analysis using principal components extraction of the FEAS revealed two factors: mastery (eigen value 4.93) and transcendence (eigen value 2.49) for the FEAS scale. Coefficient apha for FEAS subscales was .91 for mastery and .96 for transcendence. Seven day test-retest stability correlation was .81. FEAS scores differentiated between stages of change for exercise as theorized. FEAS scores were significantly correlated with days of vigorous physical activity for subjects in the maintenance (r=.52) and action (.31) stage. The results of this study are consistent with flow theory. Intrinsic motivation can be an important factor in free living exercise adherence.

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B-162f

RELATIONSHIP BETWEEN PHYSICAL ACTIVITY AND SLEEP

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Introduction. The current study explores the association between intensity and timing of exercise and a variety of sleep variables. Previous research has compared different types of exercises, with mixed results (Alencar et al, 2006; Elavsky & McAuley, 2007; Singh, Clements & Fiatarone, 1997). The research on time of day of exercise and sleep generally shows that exercise seems to be beneficial when it occurs close to sleep, but not so close as to have an alerting effect (Horne & Porter, 1976; Youngstedt, O'Connor & Dishman, 1997).

Methods. Young adults (n = 1003) completed a week-long sleep diary and a survey of frequency, type, and timing of exercise completed in the past week.

Results. 86.2% of the sample reported participating in some form of physical activity. An increase in total metabolic equivalents (METs) was related to greater sleep efficiency (SE; $r = .08$, $p < .01$) and lower time in bed (TIB; $r = -.06$, $p > .01$) and time awake in bed ($r = -.11$, $p < .01$). Pairwise comparisons of total sleep time (TST) revealed early morning exercisers had shorter TST than other times (all ps $< .05$), and shorter TIB than all other groups of exercisers (all ps $< .05$). Additionally, participants who reported higher METs during the nighttime hours also reported higher SE, ($p = .03$). Participants who reported higher METs during afternoon hours reported shorter wake after sleep onset, ($p = .05$). The same results were found for those who reported higher levels of exercise during nighttime hours ($p = .05$).

Conclusions. Greater amounts of exercise energy expenditure per week was related to increased sleep efficiency. Early morning exercisers reported shorter TST and TIB than those who typically exercised at other times. This study provides valuable information on the relationship between physical activity and sleep in a young, healthy population and will help guide future experimental and intervention studies.

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B-162g

PSYCHOLOGICAL CONSTRUCTS USED IN HEALTH RESEARCH CONDUCTED IN LATIN AMERICA

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There is substantial evidence that theoretically grounded interventions for behavioral change are effective, still, to date, there are very few studies of behavioral change in Latin America. Further, there is a growing need for interventions, since "lifestyle diseases" are becoming a major public health issue in the region.

From this need to really understand life-style behaviors, specially physical activity (PA) in the Latin American context and the growing need for sound interventions, the question emerged, which psychological constructs predict the activity level of an individual? The hypothesis was that psychological constructs such as health related locus of control, self-efficacy, perceived barriers, health value and hopelessness would predict PA levels. This was a cross-sectional survey study with a random sample of 1000 respondents aged 18 years and older, representative of the urban areas in Colombia. The instruments used were the Questionnaire of Motivational Readiness for Change, Multidimensional Scale Locus of Control, General Self-Efficacy Scale, Hopelessness Scale, and Health Value Scale.

In our sample, most respondents reported being in good health, although 41% were overweight or obese. Most respondents did not reach the recommended amount of PA and were not considering engaging in more PA.

Results of a binomial logistic regression show that the internal locus of control helped predict being physically active best (β=0,081, odds ratio 1,078). Having an external locus of control (β=-0,071, odds ratio 0,931), hopelessness (β=-0,066, odds ratio 0,936) and perceived barriers (lack of time (β=-0,502, odds ratio 0,605), skills (β=-0,690, odds ratio 0,538) or resources (β=0,456, odds ratio 1,577)) also were predictors of PA. General self-efficacy and value of health were not significant predictors in the model.

In sum, our results highlight the importance of including psychological constructs in behavioral change research in Latin America, and the need for theoretically grounded interventions in the region.

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B-162h

LESSONS FROM RECRUITING LATINO OLDER ADULTS INTO THE LIFE TRIAL

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Despite experiencing high rates of morbidity, mortality, and hospitalizations, Latino older adults have historically been underrepresented in preventive medicine research. To improve representation, the LIFE Study (a multi-site longitudinal randomized controlled trial) made an explicit effort to include ethno-racially diverse older adults. Stanford University specifically targeted Latinos for enrollment. We employed various recruitment strategies to enroll eligible Latino older adults for the study, including targeted mass mailings, media advertisements, and community outreach information sessions held at senior centers and apartments. In addition, we purchased bulletin ads at churches and placed brochures and flyers at local pharmacies. Bilingual, culturally tailored mass mailings were the most successful strategy, with 204 out of 369 total responses (55%) coming from that approach. Least successful methods for garnering responses were radio ads, website visits, and physician referrals, as just over 3% of participants inquired through these routes. Community-based events at senior centers and retirement communities, newspaper ads, and friend/family referrals were moderately successful (28% of all inquiries). Close to 14% of respondents cited multiple media sources. Anecdotally, many Latinos verbalized that repeated mailings and numerous avenues of advertising for the study led them to inquire further, as it gave the study credibility and made them more comfortable approaching staff.

For those eligible to be enrolled in the study transportation proved to be a significant barrier. In total, 35% of randomized Latinos (13/37) have needed help with reliable transportation. Results from the LIFE Study Stanford recruitment experience with Latino older adults indicate that major socioeconomic and cultural barriers such as unfamiliarity with clinical studies, work/family responsibilities, and lack of transportation can be overcome through a community-based recruitment campaign, though cost of recruitment should be carefully planned prior to initiation.

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B-162i

THE STANFORD HEALTHY NEIGHBORHOOD DISCOVERY TOOL: A COMPUTERIZED AUDIT TOOL TO ASSESS NEIGHBORHOOD BARRIERS AND FACILITATORS FOR PHYSICAL ACTIVITY

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The built environment can influence physical activity, particularly in older populations who may have impaired mobility. Existing tools to measure the built environment (i.e., neighborhood audits) are often cumbersome, not well-validated, and not readily available for use by community residents. We developed the Stanford Healthy Neighborhood Discovery Tool (SHNDT), a computerized, tablet-based audit tool designed to guide older community residents to identify neighborhood barriers and facilitators to being physically active. Using the SHNDT, older adults collect detailed data about common walking routes and built environment features they deemed important through geo-coded photos and audio narratives. In this first-generation developmental pilot study, 26 residents from three low-income communal senior housing facilities used the SHNDT while navigating a typical route in their neighborhood. Residents were 73% women, well-educated (88% ≥HS diploma), ethnically diverse (58% Non-Hispanic White, 19% Hispanic, 15% Asian, 8% Other), and some with mobility impairment (42% used assistive walking device). Residents walked on average 1.0±0.6 km from their residence and captured 4.8±3.6 pictures and 4.5±3.5 audio narratives. Systematic content analysis indicated 59.6% of audio narratives noted environmental facilitators, whereas 50.6% noted environmental barriers to being physically active. Issues noted most frequently related to sidewalk features (31%), aesthetics (27%), parks/playground (27%), and amenities/destinations (18%). SHNDT enabled older adults to capture key environmental features with modest assistance from research staff. This tool has promise to collect relevant micro-level data and foster community-focused advocacy to inform public works, city planning, and policy decisions. Future research will refine the user interface and develop automated content analysis for data processing.

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B-162j

EXAMINING THE PSYCHOLOGICAL PROCESSES ASSOCIATED WITH AFFECTIVE RESPONSE TO EXERCISE

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Background: Affective response to exercise is known to predict physical activity levels over time (Kwan & Bryan, 2010; Williams et al., 2008), yet little is known about the psychological processes that underlie this relation. The purpose of the current study was to examine whether affective response to exercise is associated with positive exercise experiences (i.e., feelings of enjoyment, accomplishment, and satisfaction after exercise bout) and with psychological factors critical to exercise goals (i.e., commitment, self-efficacy, and overall satisfaction with regular exercise).

Methods: Sixty-three previously sedentary adults (mean age: 20.59 [SD=3.31], mean BMI: 23.63 [SD=4.54], 68.3% female, 52.4% Caucasian) initiated a self-directed exercise routine and, for the first two weeks, completed brief assessments via smartphones after an exercise bout ≥ 10 minutes. Assessments included measures of affective response during exercise (Feeling Scale [FS; Hardy & Rejeski, 1989]), positive experiences after exercise, and commitment, self-efficacy, and satisfaction with regular exercise. Linear mixed models were used to examine the relations between these variables.

Results: Affective response to exercise (FS scores) significantly predicted participants' positive exercise experiences (t=18.76, p<.001) and the psychological factors of commitment (t=4.99, p<.001), self-efficacy (t=6.31, p<.001), and overall satisfaction (t=10.91, p<.001). However, when both FS and positive exercise experiences were entered as predictors of the psychological factors, FS no longer predicted self-efficacy (t=1.26, p=.21) or commitment (t=-.55, p=.58), but still predicted satisfaction (t=3.08, p<.01).

Implications: This pattern of results suggests that positive exercise experiences may mediate the effect of affective response on self-efficacy and commitment to exercise, but affective response to exercise appears to have an effect on overall satisfaction independent of its effects on positive exercise experiences. Theoretical and clinical implications will be discussed.

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B-162k

APPLYING BEHAVIORAL THEORY TO ADVANCE EXERCISE PROMOTION IN LATIN AMERICA

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Behavior change theory has been proposed as an important tool in the exercise promotion field. However, in Latin America, few researchers have utilized behavior change theory to guide exercise intervention development and evaluation.

METHODS: study assessments were conducted in a 30-minute session from April 2008-September 2009. The sample consisted of 262 individuals, 182 women and 80 men, with a mean age of 34.8 years (SD 12.1). During the 30-minute session, participants completed several culturally adapted theory-based tools found in U.S research to improve exercise adherence. These included a Transtheorical model (TTM) - based tool to identify each persons motivational readiness; an exercise motivation scale to determine initial levels of intrinsic versus extrinsic motivation; and a questionnaire (PRETIE-Q) to identify individual preferences related to exercise tolerance and intensity levels. After the 30-minute session, participants started their tailored exercise program, based on the information obtained, for a six-month period. During this period exercise adherence was defined as completion of at least three sessions of exercise per week.

RESULTS: the distribution of TTM stages was 74.4% in Contemplation, 6.1% in Preparation, 8% in Action and 11.4% in Maintenance. 76% reported an extrinsic motivation orientation toward behavior change. 36.6% had a preference for a low intensity exercise program, 39.6% has a medium intensity exercise preference and 23.6% had a high or vigorous intensity preference. 32.1% reported a low tolerance, 46% a medium tolerance, and 21.8% a high tolerance to exertion. The mean adherence level for the tailored exercise program was 63.6%.

CONCLUSION: The results of this first-generation study suggest that theoretically based information may help to increase exercise adherence in Latin American populations. A next step is to further test the efficacy of the tailored intervention using an experimental design.

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B-162l

RATINGS OF PERCEIVED EXERTION AND PHYSIOLOGICAL RESPONSES DURING EXERCISE TESTING AMONG ICD PATIENTS

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Background: Ratings of perceived exertion (RPE) while subjective, is often used as a predictor of exercise performance and termination during exercise stress testing. Ten times a rating of perceived exertion on the Borg scale (6-20) has been found to be correlated with actual Heart Rate (HR) during exertion in healthy patients. However, data suggests this relationship has not been found in cardiac patients. Furthermore, to our knowledge, this relationship has not been explored in patients with implantable cardioverter defibrillators (ICD).

Purpose: The purpose of this study is to examine the relationship between maximal RPE and other maximal physiological measures (HR, exercise stage, and METs [Metabolic Equivalents]) in patients with ICDs.

Methods: Nineteen males and three females (mean age = 60 ± 11.6 years) presented for baseline symptom-limited treadmill stress test. Regression analyses were used to examine the relationship between maximal RPE, maximal HR, exercise stage and METs.

Results: Maximal RPE [(M ± SD), 14.47 ± 2.59] was significantly correlated with exercise stage [(mean ± SD), 4.68 ± 1.88] (p=.013) and METs [(M ± SD), 4.74 ± 2.00] (p= .038). However, it was not associated with max HR [(M ± SD), 111.95 ± 20.30] (p= .565).

Conclusion: Results from this small sample of ICD patients show that RPE is associated with exertion (i.e., METs, stage); however, it may not be a good indicator of cardiovascular response (i.e., HR). This is reasonable given many ICD patients' take antiarrhythmic medication, which along with the device, monitor and control heart rate and rhythm. Further investigation is needed of these variables in a larger sample of ICD patients.

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B-167a

STRESS, SELF-ESTEEM, AND SMOKING DURING PREGNANCY

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Over 30% of women in Northeast Tennessee smoke during pregnancy. Understanding how psychosocial variables relate to smoking status and amount is important for cessation interventions. During pregnancy, this information is even more imperative, as the well-being of the developing child is also at risk. Stress, self-esteem, and smoking have the potential to be modified during pregnancy to improve pre- and postnatal health outcomes for the mother and child. Stress levels have been clearly linked to smoking habits; however, the research on self-esteem and smoking habits has been mixed. The purpose of the current study was to analyze stress and self-esteem in pregnancy, and to examine how they are both related to smoking status. Data were analyzed using questionnaire responses acquired from 581 TIPS (Tennessee Intervention for Pregnant Smokers) participants during their first trimester. Both stress $t(485.27) = -6.01$, $p < 0.001$, and self-esteem $t(573) = 5.60$, $p < 0.001$ measures were significantly different for smokers and non-smokers As predicted, stress levels were higher and self-esteem levels were lower in pregnant smokers compared to non-smokers. The full direct logistic regression model predicting smoking status based on stress and self-esteem, controlling for age and marital status was significant, $\chi2$ $(2, n = 575) = 35.02$, $p < .001$. Stress, self-esteem, and marital status all made significant contributions to the model. Because both stress and self-esteem levels were related to smoking status during pregnancy, efforts to change stress and self-esteem levels in pregnancy should be investigated as a possible aid to smoking cessation efforts

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B-172a

TRUST VS. DISTRUST: COMMUNICATING RISKS THROUGH THE USE OF ETHNIC COMPARISONS

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Hispanics are disproportionally represented among individuals who suffer from various medical conditions and diseases; Hispanics are also less likely to have access to adequate health care. One seemingly effective strategy for combating such health disparities involves developing health messages that alert Hispanics to their elevated health risks. Yet recent pilot research suggests that health messages that explicitly highlight ethnic disparities may elicit distrust rather than concern among minority residents, resulting in lower levels of protective behavior. In the current study we predicted that participants who were exposed to medical information that highlighted Hispanic health disparities would rate the information as less accurate, more suspicious, and less likely to result in behavior change compared to participants who were exposed to similar medical information that did not highlight Hispanic health disparities. Two hundred thirty-three Hispanic participants were randomly assigned to read one of several types of health messages, including messages that described the likelihood of U.S. adults contracting a target disease, messages that described the likelihood of Hispanic adults developing the target disease, and messages that described the comparative likelihood of Hispanic and non-Hispanic white adults developing the target disease (i.e., health disparity information). Participants who were exposed to health disparity information reported significantly higher levels of suspicion compared to participants in the other groups. Future studies will examine the relationship between ethnic identity, perceived discrimination, and reactions to health disparity information.

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B-172b

HISPANIC MEN'S HPV KNOWLEDGE AND WILLINGNESS TO VACCINATE THEIR CHILDREN

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Introduction: Since October 2011, the CDC has recommended vaccinating both young females and males against HPV. Parents play a critical role in uptake of this vaccine as consent is typically required. Although studied in women, little research has explored knowledge and attitudes about HPV and the vaccine among men, particularly Hispanics. Our goal was to determine knowledge and attitudes about HPV and HPV vaccination acceptability among a national sample of immigrant Hispanic men.

Methods: Data are from the National Cancer Institute's Cancer Information Service which operates a Spanish language call line. Male callers to the Spanish language call line were asked about sociodemographics and acculturation; knowledge, attitudes and beliefs about HPV; and whether the caller would be willing to vaccinate their children.

Results: Data were collected for 189 male callers. Average age was 44.5 (st. dev. 12.9) years, 64% had a high school education or less, 77% had a child, 48% had heard of HPV, and 53% of those who knew about HPV were aware of the vaccine. On average, 5.3 of 9 knowledge questions were answered correctly. Answers to questions on attitudes concerning HPV vaccination varied widely, with 97% agreeing that they would vaccinate their child if a doctor recommended it, and 51% believing vaccination would encourage their child to have sex. The HPV vaccine was highly acceptable, with 93% (94%) saying that it was very likely or likely that they would vaccinate their son (daughter) against HPV.

Discussion: Among Hispanic men, only about half had heard of HPV, and the average score on true/false knowledge questions was little better than chance. Nevertheless, over 90% expressed willingness to vaccinate their sons and daughters against HPV, indicating that this immigrant population has a strong belief in the benefits of vaccination. Targeted education programs are needed to ensure that Hispanic parents are knowledgeable about HPV in order to make informed decisions about vaccination for their children.

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B-172c

KNOWLEDGE AND ATTITUDES ABOUT LUNG CANCER SCREENING IN INDIVIDUALS AT HIGH RISK FOR LUNG CANCER

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Introduction: Lung cancer (LC) is a highly fatal disease, but the benefits and risks of screening are controversial. Individuals at high risk for LC must make difficult decisions about whether to be screened. The aim of this research was to assess attitudes, knowledge, and choices about lung cancer screening (LCS) in a nationally representative sample of individuals at high risk due to cigarette smoking.

Methods: A web-based survey was administered to 210 individuals with at least a 20 pack year smoking history through an internet survey panel. Information collected included demographics, awareness and understanding of computed tomography (CT) LCS, interest in screening, and confidence in decisions about screening.

Results: Participants had the following characteristics: mean (sd) age was 60.9 (8.5) years; 40.0 (20.1) pack years of smoking; 48.1% male; 44.3% White, 24.3% Black, and 28.1% Hispanic; and 68.9% in good to excellent health. On a scale from “1, not at all” to “7, completely”, individuals on average rated awareness of LCS as 4.08 (2.17), awareness of CT scans as 3.35 (2.16), understanding of benefits of LCS as 4.66 (2.05), and understanding of risks of LCS as 3.16 (2.10). On a 5 point scale, interest in receiving a LCS test was 2.80 (1.26), and the average amount that individuals were willing to pay for screening was $151 (163). Scores on the Decisional Conflict Scale were lower after provision of information on screening; 47.0 (27.0) pre and 17.6 (21.4) post; t=15.54, p<0.0001.

Discussion: Individuals have low understanding of LCS, yet a brief description of LCS and a values clarification task dramatically improved their confidence in LCS decisions. With recent results of the NLST showing a 20% relative reduction in LC mortality with screening in a high risk population, more smokers may become interested in LCS. Especially for those who do not meet the NLST eligibility criteria, it is critical that individuals are well informed as to the potential benefits and risks of screening.

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B-172d

COLLEGE STUDENTS’ PERSONAL AND FAMILY MEDICAL HISTORIES INFLUENCE ON PARTICIPATING IN GENETIC BIOBANKING

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Background: The feasibility of genetic biobanks largely depends on people’s willingness to participate. Prior international studies have assessed adults’ perceptions about biobanks. In the US, the role of personal or familial medical history as a motivating factor for college students’ participation has not been yet explored.

Purpose: This study assessed the relationships between college students’ personal and familial medical histories and willingness to participate in biobanks.

Methodology: A total of 250 participants completed an18-item questionnaire. Questions pertained to demographics, health behaviors, medical history, and willingness to participate in genetic biobanks.

Results: Participants were primarily white (73%), female (66%), young adult age (M=20, SD=2; range 18-31), early college years (M=13,SD=1), from a private college (66%). While 27% were minorities, 15% also self-identified as Hispanic/Latino.The majority of reported personal illnesses were respiratory-related (10-13%). Cardiovascular diseases and cancers were the most identified family illnesses (21%-38%). Overall, 64% of the sample was willing to participate in genetic biobanks. While x2 analyses were not significant between prior personal or familial histories and willingness to participate (p>.05), participants’ current health behaviors were significantly related to family health histories. Forty-five percent of participants reported a history of smoking with significantly more males smoking than females (x2=11.73, p=.001). Smoking was significantly associated with family histories of lung and breast cancers, hypertension, and heart disease (x2analyses ranged 4.32-8.48, p <.05)

Conclusions: Smoking plays a paradoxical role for this sample’s significant familial medical histories. While preliminary findings indicate no relationship between medical histories and willingness to participate in biobanks, smoking behaviors were significantly associated with the leading causes of death in the US. Smoking is a risk factor for many diseases that can be examined in genetic biobanking research.

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B-177a

THE HPV VACCINE IS AVAILABLE FOR MEN: WILL THEY GET IT?

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Human papillomarvirus (HPV) is the most common sexually transmitted infection in the US. In 2009 the HPV vaccine, previously only available for women, was approved for use with men. The vaccine has the potential to significantly reduce the types of HPV that cause cervical cancer, anal cancer, and genital warts. Researchers have evaluated men’s attitudes and intentions to vaccinate (e.g., Jones & Cook, 2008; Petrovic et al., 2011); however, these studies took place before the vaccine was approved for men. The present study examined men’s intentions to obtain the HPV vaccine approximately one year after it was approved for men. Participants were a diverse group of 81 undergraduate men (aged 18-29, M=19.40) who completed an on-line survey about their knowledge, attitudes, and intentions to obtain the vaccine within a year. Men’s intentions to vaccinate were low (M=2.48, SD=.90) on a 5-point scale (1=definitely won’t, 5=definitely will). Men’s intentions were significantly higher when asked if they would get the vaccine in the next year if it also protected against penile, anal, head or neck cancer (M=3.59, SD=1.11), t(75)=-7.29, p<.005. Multiple linear regression analyses revealed a model that accounted for 34.4% of the variance in intentions to vaccinate in a year, F(5,67) = 8.54, p < .01. Significant predictors were perceived barriers (β=.379, p<.01) uncertainty (β=-.359, p< .01), perceived effectiveness in preventing genital warts (β=.300, p<.01), if the vaccine protected against penile, anal, head or neck cancer (β=.245, p<.05) and if other men in their community were getting the vaccine (β=.234, p<.01). In this study that was conducted after the HPV vaccine was approved for men, we found men's intentions to be lower than previous research conducted before approval. This finding, as well as the variables we found to predict intentions have implications for HPV vaccine interventions with men. The way in which we as researchers define barriers will also be discussed.

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B-179a

IMP LEMENTING A BRIEF STIMULUS CONTROL INTERVENTION FOR COLLEGE STUDENTS AT A UNIVERSITY HEALTH CLINIC: A CLINICAL CASE SERIES

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Background: Poor sleep can significantly impact overall health and academic performance. It is a common complaint among college students, leading many to seek help at university health clinics. Stimulus control effectively improves sleep without the side effects common to psychopharmacological intervention. However, there are no studies examining the effectiveness of a brief (1-3 30-minute sessions) stimulus control intervention that could be implemented by behavioral health providers in a university health setting.

Method: A retrospective chart review study identified 11 patients, referred for sleep complaints, who received a brief stimulus control intervention between Fall 2009 and Spring 2010 semesters at Syracuse University Health Services. Data were pulled from the electronic medical record to describe the patients, sessions, and sleep outcomes assessed using the Insomnia Severity Index (ISI).

Results: Most patients (64%) met with the integrated behavioral health provider for two sessions, which ranged from 10-45 minutes (mode = 30). Patients were primarily female (73%) and ranged in age (M=22, SD=3). The average total ISI score was 16 (SD=4) at the initial session and 9 (SD=4) at the second session. At the second session, 10 patients had total ISI scores in the subthreshold insomnia range, and 9 had a reduction in total ISI score from the initial to second session. Eight of those 9 patients' total ISI scores moved from indicative of clinical insomnia to subthreshold insomnia.

Conclusions: Identifying effective sleep interventions that can be implemented within university health settings is vital, as students often seek help from providers. These data provide preliminary evidence that a brief stimulus control intervention may be effective in reducing sleep complaints. This study also demonstrates how behavioral health providers can use empirically-validated questionnaires, such as the ISI, to evaluate the effectiveness of interventions within the clinical arena.

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B-191a

I KNEW I COULD TRUST HER: A QUALITATIVE INVESTIGATION OF ENGAGEMENT WITH TELEPHONIC SMOKING CESSATION INTERVENTIONS

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What factors influence one patient to feel close to a provider and another to feel distant? Is it possible to establish a strong working alliance with a treatment provider over the phone? The results of a qualitative thematic content analysis of engagement with a telephonic smoking cessation investigation indicate that, although there are varying levels of closeness felt by participants, engagement is possible using a telephonic modality. This study is based on a post-intervention sample of participants in a randomized comparative treatment design study investigating nicotine addiction treatment. Structured interviews were conducted with 62 participants receiving Motivation Enhanced Therapy (MET) or MET plus Transtheoretical Model tailored therapy across various demographic characteristics including race, ethnicity, and gender to discern engagement with treatment coaches.

The interviews were transcribed and analyzed using a qualitative data analysis software program. Analysis of interviews by clusters of demographic variables and levels of participation (high participation and low participation rates) provided insight into the contributions of demographic characteristics. Some of the emergent major themes will be presented and include the following: Participant engagement was strengthened by perceived non-judgment and respect, when coaches remembered details about a previous contact, and when participants were able to speak with the same coach each session. Participants also reported wanting more than three sessions. Participants believed that incentives would not have influenced their engagement with the coach or treatment. Finally, most of the participants who successfully reduced or quit smoking also reported multiple behavior change and improved quality of life. Results were comparable across demographic variables. Participants who did not reduce or quit smoking reported factors other than engagement as being responsible for their low participation in the study.

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B-191b

GENERAL PARENTING, ANTISMOKING SOCIALIZATION, AND ADOLESCENT SMOKING ESCALATION

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We examined the effects of parent smoking, general parenting (monitoring, support), and parental antismoking socialization (reactions, messages) on longitudinal patterns of adolescent smoking. We predicted that antismoking socialization mediates the relationship between parent smoking and adolescent smoking, and that general parenting moderates the relationship between antismoking socialization and adolescent smoking, such that at high levels of monitoring and support, parental reactions and messages are more protective against adolescent smoking than at low levels. Participants were 970 adolescents (418 males; mean age = 15.6; 61.8% white) oversampled at baseline for previous smoking. Parent smoking, monitoring, support, messages, and reactions were assessed at baseline. To determine longitudinal smoking patterns, adolescent smoking was assessed at multiple points through 24 months. The sample consisted of 246 nonsmokers (25.3%), 373 infrequent nonescalating smokers (38.5%), and 351 escalating smokers (36.2%). A series of logistic regressions examined our hypotheses for smokers (escalators, nonescalators) vs. nonsmokers and escalating vs. nonescalating smokers. Analyses confirmed that parental antismoking reactions mediate the relationship between parent smoking and adolescent smoking, for mothers but not fathers (p < .05). Multivariate analyses indicated that parental antismoking messages are unrelated to adolescent smoking. Tests of moderation confirmed that parental antismoking reactions are more protective against adolescent smoking at high levels of parental support than at low levels. We were surprised to find that when parental support is high, antismoking messages increase the likelihood of adolescent smoking (p < .05). Parental support and antismoking reactions protect against adolescent smoking escalation (p < .05), but the moderating effects of parenting style are not relevant in preventing escalation. Our findings suggest that parental support and antismoking reactions protect against adolescent smoking initiation and escalation, but the effects are different for mothers and fathers.

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B-191c

CULTURALLY TARGETING AN ESTABLISHED SMOKING CESSATION INTERVENTION FOR THE LGBT COMMUNITY

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Smoking prevalence rates in the LGBT community are 20% - 200% higher than heterosexuals. Culturally tailored interventions improve smoking cessation outcomes among minority group members. We applied formative research methods to tailor an established smoking cessation curriculum, Courage to Quit (CTQ), to the needs of the LGBT community. Focus groups (N = 6) were conducted to identify facilitators and barriers to cessation among a convenient sample of LGBT individuals (N = 26 participants). Participants were racially diverse (30.8% African American), mostly male-identified (69.2%) and diverse in age (M = 37.8 years). The majority of smokers reported smoking a mentholated brand (57.7%) and previous quit attempts (88.5%). Cessation barriers included: community acceptance ("Every gay friend I have smokes"), social ("I smoke during work breaks with other people"), behavioral ("I smoke when I drink"), and emotional ("Smoking calms me down"). Facilitators to cessation included: health ("I don't like having smoker's cough"), financial costs ("I spend too much on cigarettes"), and shifting social norms ("It is almost unacceptable to smoke in public"). Using focus group data, expert review, and strategies established by Kreuter et al. (2003), we tailored the CTQ curriculum. Strategies for tailoring included: peripheral strategies (using images of LGBT people); evidential strategies (presenting evidence of harmful effects of smoking in the LGBT community); linguistic strategies (using vernacular consistent with the LGBT community); constituent-involving strategies (having an LGBT ex-smoker as a peer-facilitator to group sessions); and sociocultural strategies (discussing stressors that facilitate smoking in the LGBT community). Learner verification trials of curriculum acceptability are currently underway prior to a funded large scale study to evaluate the effectiveness of the targeted and non-targeted intervention CTQ intervention for LGBT smokers in a randomized clinical trial (N = 400).

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B-191d

SMOKERS REPORT GREATER ALCOHOL DEMAND ON A BEHAVIORAL ECONOMIC PURCHASE TASK

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Cigarette smokers have higher levels of alcohol consumption than nonsmokers and poorer response to alcohol treatment. Although not directly tested, it is possible that smokers have a greater general susceptibility to drug-related reinforcement. Alcohol and drug purchase tasks have been developed to generate demand curves which can measure several facets of the incentive value or reinforcing efficacy (RE) of drugs, including maximum levels of consumption and expenditures, and the relative price sensitivity of consumption. Several studies have shown that demand curve indices of RE are associated with higher levels of alcohol problems, craving, and poor response to intervention. The present study investigated the mechanism by which smoking status confers risk for alcohol problem severity by examining whether heavy drinking smokers would have greater alcohol demand than heavy drinking nonsmokers. Participants were 207 college students who reported at least one heavy drinking episode in the past month. Of the 207 participants, 33.2% (n=67) reported smoking cigarettes at least 1 day in the past month. To assess smoking status, participants completed the Fagerström Test for Nicotine Dependence. Additionally, they completed the Alcohol Purchase Task that asked students to report how many drinks they would purchase and consume at 17 price increments (0-$20 per drink). After controlling for students' reported alcohol consumption, ANCOVAs revealed that smokers had greater maximum expenditure (Omax), F(1, 198) = 7.87, p<.01, higher breakpoint values, F(1, 198)=6.16, p=.01, and were less sensitive to increasing prices (lower elasticity) compared to students who did not smoke cigarettes, F(1, 154) = 5.53, p<.05. These results suggest that young adult heavy drinkers who also smoke cigarettes have increased demand for alcohol and are less sensitive to increases in price. Smokers may thus be less sensitive to price and other contingencies that would otherwise serve to modulate drinking and may require more intensive intervention approaches.

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B-194a

GOD LOCUS OF CONTROL, COPING, AND DISEASE-RELATED DISTRESS IN SYSTEMIC SCLEROSIS

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In Systemic Sclerosis (SSc), an autoimmune, rheumatic disease, patients experience chronic and disabling symptoms. There is insufficient knowledge of cause, limited treatment options, and no cure. Despite this, the effectiveness of coping strategies has been linked to a perceived sense of control over the disease, although religious control has received little study. This study evaluated the relationship between perceived control over disease attributed to God (God health-related locus of control; GLC) and coping strategies in predicting distress in SSc. Patients (N = 93) received clinical exams from rheumatologists and completed the Multidimensional Health Locus of Control Scales (GLC subscale), the Revised Ways of Coping Checklist (WCCL-R), and the Psychosocial Adjustment to Illness Scale (PAIS; psychological distress [PD] subscale). The WCCL-R yields eight subscales (problem-focused, seeking social support, wishful thinking, avoidance, self-blame, blaming others, counting blessings, and religious). Hierarchical linear regression was used to predict PD from GLC, coping, and their interaction, after controlling for disease severity and demographics. The final model was significant, accounting for 46.9% of the variance in PD scores. Of the coping strategies, wishful thinking was the only significant predictor of PD (beta = .36, p = .004). The interaction of GLC and religious coping significantly predicted PD (beta = .32, p = .007), with the positive relationship between religious coping and PD being stronger in the presence of higher GLC. Overall, GLC appeared to have the greatest implications for distress when providing a context for religious coping efforts, in that people who perceived that God had control over their illness were more distressed when using religious coping to manage a largely uncontrollable disease.

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B-202a

SEEDS OF RESILIENCE: U.S. LATINOS AND THE 2009 H1N1 PANDEMIC

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Background: Throughout history, people have soothed their fear of disease outbreaks by searching for something or someone to blame. Such was the case in April 2009, when the media first reported an outbreak of the A(H1N1) flu virus. Mexicans and other Latinos living in the U.S. were quickly stigmatized by non-Latinos as carriers of H1N1, based on news reports about the outbreak's origins in Mexican pig farms.

Purpose: To examine the racial cues that circulate through the news media, and in general public discourse, during flu outbreaks. In particular, we seek to understand the ways in which a diverse group of Boston-area residents interacted with these cues to form their own interpretations about the role of race and ethnicity in disease outbreaks.

Methods: This study consists of a close re-examination of data from five focus group discussions about the H1N1 outbreak from May-July 2009. An initial wave of thematic coding was performed inductively, followed by a second wave of rigorous computer-assisted analysis that was guided by a "stress and coping" model of interracial interaction.

Results: Three themes emerged: one in which Latinos were characterized as "alien invaders" or disease vectors; one in which Latinos struggled and persevered in the face of scapegoating and discrimination; and one in which non-White respondents of various ethnicities showed novel responses - seeds of resilience - despite prevailing stigmas and stereotypes.

Conclusions: Public health and emergency preparedness practitioners can help to mitigate the impacts of flu hysteria and racial stereotyping by anticipating these issues on a local basis, and by developing strategies to combat them.

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B-207a

PERCEIVED RISKS OF AMED CONSUMPTION AMONG YOUNG COLLEGE STUDENTS

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Consuming alcohol mixed with energy drinks (AmED) is popular among young college students. The present study examined how AmED users differ from non-AmED consumers in their perceived norms of AmED use, and perceived risks that come from consuming AmED. The present study used a sample of 704 students. Participants were asked about their AmED use, perceptions of risk for consuming AmED, and perceived peer use. Of the sample, 30.2% of those who drank alcohol in the past 30 days reported consuming AmED. Pairwise comparisons were made between those who consumed AmED in the past 30 days, and those who did not consume AmED in the past 30 days. Those who consumed AmED in the past 30 days were significantly more likely to report less perceived risk of injury from consuming AmED (M = 2.40) than non-AmED consumers (M = 2.93), p < .001. AmED users expected significantly less perceived adverse consequences (M = 1.69) from consuming AmED than non-AmED consumers (M = 2.20), p <.001. AmED consumers were significantly more likely to believe that the benefits of AmED consumption outweigh the risks (M = 1.72) than when compared to non-AmED consumers (M = 1.33), p <.001. AmED consumers were significantly more likely to see AmED consumption as more common (M = 2.42) than non-AmED consumers (M = 2.06), p <.001. AmED consumers perceived significantly more peer admiration towards AmED consumption (M = 2.46) than when compared to non-AmED consumers (M = 2.11), p < .001. Finally, AmED consumers were significantly more likely to believe that AmED improves sexual performance (M = 1.84) than non-AmED consumers (M = 1.58), p = .005. Multivariate logistic regression predicting AmED use revealed that expecting less adverse consequences, perceiving more benefits than risks from consumption, and perceived peer use of AmED were the only significant predictors of AmED consumption after accounting for the influence of the other variables. Results illustrate that AmED consumers perceive themselves at less risk as well as see AmED consumption as more normative than non-AmED consumers.

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Rapid Communications Poster Session C

Friday, April 13, 2012
7:00 PM - 8:30 PM

C-034a

ASSESSING NUMERACY IN ONCOLOGY: THE ROLE OF PATIENT PERCEPTION AND PREFERENCES

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Understanding treatment information is essential for shared decision making (SDM), yet research suggests that patients often struggle to comprehend quantitative treatment data. Assessment of numeracy and preferences for communication format is one potential approach to improving this process. This study explored subjective (SN) and objective numeracy (ON) and patient experience with and preference for communicating quantitative information during oncologic treatment consultations. This study was conducted with individuals diagnosed with follicular lymphoma using a mixed methods approach. Participants completed semi-structured interviews (N = 20) and surveys (N = 32) assessing ON and SN, decisional conflict (DC), regret (DR), and preference for number use in discussing treatment. Participants were an average age of 57 (±10.2), predominately Caucasian (94%), female (59%), and married (81%). ON was relatively high, with a mean score of 8.06 (range = 0-11; SD = 2.5). However, only 12.5% of participants answered all items correctly and almost one-quarter of the sample correctly answered six or fewer questions. SN was similarly high, with 85% reporting confidence in their ability to understand quantitative treatment information. Correlational analyses failed to identify a significant relationship between numeracy (ON or SN) and DC and DR. Qualitative data revealed that most participants (75%) preferred to receive numbers during the SDM process, due to a belief that numbers reduced ambiguity. Those that did not prefer the use of numbers (25%) cited distrust of statistics and/or their provider, and math/numerical anxiety. Finally, qualitative data revealed patient characteristics that may act as barriers for participating in a SDM process, such as passive avoidance of numbers. The results from this study provide further insight into how patients experience the SDM process. Future research should investigate the use of numeracy measures in practice and the impact of patient preferences and beliefs in SDM.

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C-034b

EXPLORING THE ROLE OF NEIGHBORHOOD CHARACTERISTICS ON HPV VACCINE INITIATION AMONG LOW-INCOME, ETHNIC MINORITY GIRLS

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Background: HPV vaccines have the potential to substantially reduce future cases of cervical cancer. Vaccination rates are low in many groups that may face barriers to utilization. Little is known about whether neighborhood factors influence vaccine uptake. Methods: We collected data via a Los Angeles County health hotline from largely immigrant, low-income mothers of girls ($n = 483$) ages 9 to 18. We used 2005-2009 American Community Survey data for neighborhood (i.e. census tract) factors. We used multilevel logistic regression to assess the effects of neighborhood characteristics on HPV vaccine initiation (receipt ≥ 1 dose). Results: Only 27% of girls initiated the HPV vaccine. The 341 neighborhoods in the study had higher rates of poverty, higher proportions of minority residents, and more residents that relied on public transportation to get to work compared to county averages. Girls in neighborhoods with the highest poverty rates and highest proportion of minority residents had higher initiation rates (30-35%) than girls living in areas with lowest poverty (27%) and lowest proportion minority residents (21%). In the multivariate analysis, only mother's awareness of HPV, age of adolescent girl, and having public insurance were significantly associated with initiation. Conclusions: Low-income girls in relatively more advantaged neighborhoods may face more barriers to accessing the HPV vaccine compared to low-income girls in disadvantaged neighborhoods, possibly because safety-net immunization services are concentrated in more impoverished areas. Future interventions should focus on improving HPV vaccine awareness and targeting vulnerable families outside the catchment area of public vaccination programs.

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C-034c

PREDICTORS OF ANXIETY IN WOMEN WITH ABNORMAL BREAST BIOPSY RESULTS: RELATIONSHIP OF POSITIVE PSYCHOLOGICAL FACTORS TO ANXIETY

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Psychological distress experienced before diagnostic or curative breast cancer surgery (i.e., excisional breast biopsy, lumpectomy) has been associated with negative outcomes such as anxiety, pain, nausea, and fatigue. Investigating predictors of pre-surgical anxiety could further elucidate the experience of psychological distress during this time frame and the vicious cycle of distress and negative outcomes. Positive psychological factors could be important to consider, as they have been shown to serve a buffering function to health problems associated with negative emotions. A better understanding of pre-surgical anxiety and its predictors could have important psychosocial treatment implications. The primary aim of this study was to examine the relationship of positive psychological variables (i.e., positive affect, gratitude, spirituality) at the time of imaging guided breast biopsy to anxiety one-week after receipt of an abnormal biopsy result (i.e., cancerous or excisional biopsy recommended). The sample included 42 women (71% White; 29% African American; M=55 yrs). The secondary aim was to investigate women's preferences for psychosocial support during this time frame. Correlational analyses showed that patients who had lower anxiety one-week after receipt of an abnormal biopsy result scored higher on positive affect ($r=-.424$, $p<0.01$), gratitude ($r=-.392$, $p<0.01$), and spirituality ($r=-.53$, $p<0.01$) at the time of biopsy. Results also indicated that women were particularly interested in strategies for managing anxiety or stress during biopsy (M=4.15, range 1-5). These results indicate that positive mood, gratitude, and spirituality may be important in explaining the variability in anxiety in women with abnormal breast biopsy results, and that women are interested in psychological interventions during this time frame. These findings highlight the potential benefit of positive psychological factors and psychosocial interventions at the time of breast cancer diagnosis and surgery.

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C-034d

THE INFLUENCE OF NUMERACY, NUMERICAL DEPENDENCE AND SMOKING STATUS ON RACIAL DIFFERENCES IN CANCER RISK PERCEPTION

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Introduction: Recent evidence indicates that minorities have lower perceived cancer risk compared to non-minorities. Risk perception accuracy is enhanced by the ability to reason with numbers and statistics (numeracy). It is unknown how this construct, along with smoking behavior and the extent to which people depend on numbers to make health decisions (numerical dependence), jointly influence cancer risk perceptions, and whether these influences differ by race.

Method: This study used the NCI's 2007 HINTS data. Eligible respondents were > 45 yrs. (N = 3864). The item "In general, how easy or hard do you find it to understand medical statistics?" assessed numeracy. The item "In general, I depend on numbers and statistics to help me make decisions about my health" assessed numerical dependence. Given the nature of the data, we used 3-level hierarchical linear models to predict cancer risk perception.

Results: There were significant 3-way interactions among numeracy, numerical dependence and smoking status that differed by race. Smoking status was a weak predictor of cancer risk perceptions for White respondents. Smoking status did not predict risk perceptions for non-numerically dependent Black respondents. For Black respondents who were numerically dependent, smoking status positively predicted perceived cancer risk regardless of numeracy. In contrast, cancer risk perceptions were actually lower among Hispanic respondents who smoked, compared to non-smokers, when they were low in numeracy and were not numerically dependent. For all other Hispanic respondents, smokers had higher perceptions of cancer risk.

Discussion: Though race influences risk perceptions, the effect masks between and within race differences when one considers numeracy, numerical dependence, and smoking behavior. To elucidate why race differences exist, we should probe what people mean when they say they "depend on numbers to make health decisions".

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C-034e

UNDERSTANDING CERVICAL CANCER SCREENING INTENTIONS AMONG LATINAS USING AN EXPANDED THEORY OF PLANNED BEHAVIOR MODEL

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The present study examined the utility of the Theory of Planned Behavior (TPB) combined with acculturation and past cervical cancer screening behavior in predicting cervical cancer screening intentions among Latinas. The sample consisted of 206 Latinas (mean age = 36.12, SD = 5.98) who responded to a self-administered survey. Structural equation modeling (SEM) was employed to test the model. Fit statistics for the expanded TPB model indicated good model fit: $\chi2$ (32) = 32.12, p-value= .461; CFI= .999; RMSEA=.004 (.000, .052); SRMR= .045, R2 = .62. We found that acculturation (p= .025) and past screening behavior (p= .046) along with attitude (p= .036), subjective norms (p= .005), and perceived behavioral control (p= .016) predicted the intention to be screened for cervical cancer. The current study suggests that the TPB may be applied when examining cervical cancer screening among Latinas and developing interventions to increase screening in this population.

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C-034f

PREDICTORS OF COLORECTAL CANCER SCREENING DISCUSSIONS BETWEEN AFRICAN-AMERICAN PATIENTS AND THEIR PROVIDERS

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Provider recommendation is a significant predictor of colorectal cancer (CRC) screening. This study focused on patient-provider CRC screening discussion outcomes of a randomized intervention trial. African-American primary care patients who were non-adherent to screening recommendations received either a computer-tailored CRC screening intervention or a non-tailored print brochure. Participants (n=660) completed a telephone interview 1 week post-intervention. Demographic and health belief variables were examined as possible predictors of patient-provider CRC screening discussions about any colon test, stool blood test and colonoscopy using logistic regression. Compared to controls, greater proportions of those who received the intervention reported having a discussion with their provider about any CRC screening test, stool blood test, and colonoscopy (all p-values <.05). Predictors of self-reported discussion about any colon test included treatment group, age, marital status, family/friend recommendation, and colonoscopy self-efficacy (all p-values <.05). Predictors of self-reported stool blood test discussion include treatment group, age, and site (all p-values <.05). Predictors of self-reported colonoscopy discussion included treatment group, age, family/friend recommendation, prior provider recommendation for colonoscopy, cancer fatalism, and colonoscopy self-efficacy (all p-values <.05). Results suggest that tailored interventions may successfully promote patient-provider CRC screening discussions.

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C-034g

BLOCKAGE OF LIFE GOALS FOLLOWING PROSTATE CANCER: RELATIONSHIPS TO SEXUAL FUNCTIONING AND PSYCHOLOGICAL DISTRESS

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INTRODUCTION: Prostate cancer can be a life changing experience, and many patients experience persistent impairments in physical functioning following treatment. For some, prostate cancer can lead to the blockage of previously pursued life goals. Likewise, goals may have to be changed or abandoned and efforts re-channeled into new or modified goals. This study examined whether giving up or reducing effort toward a life goal because of prostate cancer diagnosis or treatment was associated with greater psychological distress. Additionally, the relationship between sexual functioning and distress within the context of giving up/reducing a life goal was examined. METHODS: Participants were 69 English-speaking men who were treated for localized PC within the prior 2 years (M age = 69.5, SD = 9.01). Participants were interviewed about their life goals before and after cancer and completed questionnaires including the UCLA Prostate Cancer Index to measure prostate-specific functioning and an adapted version of the Impact of Events Scale to measure cancer-related intrusive thoughts. RESULTS: Twenty-seven men (39.1%) reported giving up or reducing effort towards a goal as a result of prostate cancer, which was associated with higher levels of cancer-related intrusive thoughts ($r = .25$; $p < .05$). In regression analyses controlling for participant age and marital status, for men who reported giving up a goal, better sexual functioning was associated with lower distress ($B = -.35$, $p < .05$); while no relationship ($B = -.19$, ns) between sexual functioning and psychological distress was found for men who did not report giving up or reducing effort toward a life goal. CONCLUSION: Giving up goals because of prostate cancer may contribute to higher levels of cancer-related intrusive thoughts, and may be an important context within which physical symptoms are associated with psychological distress.

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C-034h

OVARIAN CANCER SCREENING AS A TEACHABLE MOMENT FOR HEALTH BEHAVIOR CHANGE

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A Teachable Moment (TM) occurs following a health related event, when patients experience cognitive and affective changes and consequently, are more open to positive health behavior change (HBC). Literature suggests cancer screenings can serve as a TM. The aim of this study was to examine cognition and affect associated with ovarian cancer screening (OCS) and identify how these factors impact perceived benefits of OCS and openness to an HBC intervention. Women (N=28) undergoing routine OCS tests completed surveys prior to and 24-48 hours after their OCS test. Cognition (perceived risk) and affect (PANAS), as well as perceived benefits (Positive Consequences of OCS) of OCS, were assessed. Results indicated a majority of women (61%) were open to participating in an HBC intervention and reported having experienced “quite a bit” to “a great deal” of OCS benefits including: reassurance (68%), feeling relaxed (64%), feeling hopeful (75%), less anxiety about OC (71%), and well-being (79%). Perceived risk remained stable and was unrelated to perceived benefits of OCS or openness to the HBC intervention. While not significant, negative affect decreased ($p=.40$) and positive affect increased ($p=.11$). However, changes in negative ($r=.55$) and positive affect ($r=.52$), were associated with benefits of OCS ($p<.01$). Interestingly, women who reported greater benefits of OCS were more likely to decline the intervention ($p=.06$). Positive and negative affect seem to be important in understanding how women perceive benefits of OCS. Perceived benefits have often been posited as fundamental in HBC. In our sample, women who perceived fewer benefits from OCS were actually more open to HBC. Perhaps, women who experience fewer benefits from engaging in OCS seek more opportunities to engage in positive HBC. In contrast, women who construe high levels of benefit from current HBs might feel less need for HBC. Future research should continue to examine the potential for CS settings to serve as a TM for enhancing HBC and elucidate the how short term changes in affect and cognition translate into HBC intentions.

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C-034i

ASSESSING THE WELLNESS NEEDS OF WOMEN WITH A HISTORY OF BREAST CANCER: DATA FROM THE 2005-2008 NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY

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The past twenty-five years has seen increased attention to the long term clinical and psychosocial care of breast cancer (BrCa) survivors. Despite increased risk for new primary cancers and development of chronic comorbid conditions, women can achieve better quality of life and perhaps longer disease free survival by adopting healthful lifestyle changes. The aim of this study was to describe the wellness needs of women with a BrCa history. Analysis included 11,791 women age 18 and over who participated in the continuous National Health and Nutrition Examination Survey (NHANES) between 2005 and 2008. Of these adults, 169 women reported a previous BrCa diagnosis (mean age 64.3 ± 1.84), and had lived an average 9.2 ± 0.79 years past diagnosis. Analyses were weighted using NHANES sample weights. Results indicate multiple avenues for improving quality of life in this population. BMI among BrCa survivors averaged 27.6 ± 0.81, with 59.8% being overweight or obese. BrCa survivors reported an average 31 minutes of vigorous phsycial activity and 44 minutes moderate physical activity per day, approximately half the level reported by women with no BrCa history, but they also reported over 8 hours of sedentary activity in a typical day. Although the majority of BrCa survivors did not smoke, 25.3%

were daily smokers. Depressive symptoms caused difficulties in daily activities and relationships with others for 32.4%, yet only 5.4% had sought help from a mental health professional or social worker. Although 14.3% indicated a need for greater social support, virtually all, or 98.1%, reported reliable access to healthcare and advice, highlighting primary care as an ideal venue for extending survivorship services. Implications and recommendations for enhancing survivorship care will be discussed. For example, survivorship navigators in community health clinics can track follow up, promote adherence to screening and preventive care, and assist in accessing resources to support the lifestyle goals and objectives identified in survivorship care plans.

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C-034j

WHAT ARE YOU WORRIED ABOUT?: ILLNESS PERCEPTIONS AND DISTRESS IN YOUTH CANCER PATIENTS AND THEIR PARENTS

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Together with their parents, adolescent and young adult (AYA) cancer patients face a potentially long illness marked with uncertainty and stress. However, AYA patients and parents may focus on different aspects of the cancer experience and develop divergent views of the illness, which may contribute to their psychological distress. We examined the unique illness perceptions of AYA patients and their parents, and investigated the relationship between their illness perceptions and symptoms of depression, anxiety, and somatization. We recruited 92 cancer patients (age: 12-24; M:52%) in active treatment diagnosed within the past 5 years (41% Leukemia, 13% Lymphoma, 13% Gonadal, 32% Other) and their caregivers (86% parents; age: 24-68; F:85%) from an outpatient cancer clinic to complete a survey about their illness perceptions (e.g., control over the illness) and psychological distress. Paired sample t-tests indicate that, compared to AYA patients, parents expect the illness's duration to be longer ($t(86)=4.35$, $p<.001$), feel less in control of the illness ($t(86)=-5.16$, $p<.001$), are more concerned about the illness ($t(89)=10.90$, $p<.001$), are more emotionally affected by the illness ($t(89)=7.96$, $p<.001$), and understand the illness better ($t(89)=1.99$, $p=.05$). Hierarchical linear regression analyses indicate that parents' general distress was predicted by having a good sense of understanding their child's illness ($B=-.276$, $p<.01$), whereas AYA patients' general distress was primarily predicted by their perceived duration of the illness ($B=.226$, $p<.05$). These findings suggest that the cancer experience may be especially difficult for AYA caregivers, but having a better understanding of the illness protects them from psychological distress. Also, AYA patients' perceived illness duration is an important predictor of their distress. These findings highlight the differences in perceptions of AYA patients and their caregivers, and suggest that their unique illness perceptions should be considered as points of influence for mitigating cancer-related psychological distress.

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C-034k

AN ASSESSMENT OF BODY COMPOSITION, BALANCE, AND MUSCULAR STRENGTH AND ENDURANCE IN BREAST CANCER SURVIVORS

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Context: Incidence rates for breast cancer continue to rise with improved methods of screening, detection, diagnosis and treatment. The chance of developing breast cancer is 12%, or 1 out of 8 women. Increased survival equates to increased needs for support services to restore or promote healthy living. This includes leading an active lifestyle with independent physical capabilities. Objective: Assess body composition, balance, and upper extremity muscular strength and endurance in breast cancer survivors (BCS) shortly after diagnosis and during and after chemotherapy. Design: Prospective exploratory design with one control arm. Patients/Participants: Females within 1 month of breast cancer diagnosis and/or have previously underwent chemotherapy for the treatment of breast cancer. Instruments: Dual energy x-ray absorptiometry assessed body composition; isokinetic dynamometry quantified bilateral muscular strength and endurance during a chest press movement; and static balance was evaluated using the Balance System SD. Outcome Measures: Dependent variables include body weight (BW), body fat percentage (BF), lean body mass percentage (LBM), body mass index (BMI), bone mineral density (BMD), bone mineral content (BMC), balance (sway index), and muscular strength and endurance (peak torque, power, and total work). Results: LBM was significantly lower in BCS as compared to controls ($p=0.047$). BCS had increased BF and BW compared to controls, and showed a significant increase in BW from initial diagnosis to treatment completion ($p=0.037$). BMI, BMD, and BMC did not significantly differ from controls. BCS produced increased measures of sway compared to normative values. Muscular strength and endurance did not differ between affected and unaffected arm. Conclusion: Current findings align with previous studies in terms of body composition and balance and serve to inform future research utilizing larger sample sizes with baseline measures.

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C-034l

RACIAL/ETHNIC VARIATIONS IN COLORECTAL CANCER SCREENING SELF-EFFICACY, CRC FATALISM AND CRC RISK PERCEPTION IN A SAFETY-NET CLINIC POPULATION

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Ethnic and racial minority groups usually receive fewer colorectal cancer screening tests and are less likely to be up-to-date with screening than the population as a whole. Access, limited awareness of CRC and barriers may, in part, be responsible for inhibiting widespread adoption of CRC screening among these groups. The purpose of this study was to examine the role of self-efficacy, fatalism and cancer risk perception across racial and ethnic groups. This study was a secondary analyses of a two-arm randomized controlled trial, testing the efficacy of a touch screen computer intervention tailored to decisional stage, barriers, and “implementation intentions” for CRC screening in adults over 50 years of age. Participants were recruited from 9 urban primary care clinics. Although the parent study involved participant randomization to one of two conditions of a computerized multimedia intervention on CRC, this study presents survey data collected at baseline. Out of 470 participants, 42% were non-Hispanic black, 27% Hispanic and 28% non-Hispanic White. Hispanics and non-Hispanic Blacks were more likely to be fatalistic about CRC than non-Hispanic White. While we did not find significant differences in fatalism between Hispanic and non-Hispanic Blacks, non-Hispanic Blacks perceived higher risk of getting colon cancer. Self-efficacy in completing CRC screening did not differ across racial and ethnic groups. Racial and ethnic differences in risk perceptions, fatalism and self-efficacy should be taken into consideration in future colorectal cancer interventions with marginalized and uninsured populations. This has important ramifications given likely coverage expansions under the Patient Protection and Affordable Care Act.

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C-034m

EFFECT OF RESISTANCE TRAINING ON BLOOD COUNTS DURING CHEMOTHERAPY FOR LUNG CANCER: A PILOT RANDOMIZED CONTROLLED TRIAL

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Purpose: Chemotherapy agents can have a detrimental effect on blood counts in cancer patients. The aim of this pilot study was to compare the efficacy of a physical activity intervention utilizing resistance bands to usual care for attenuating declines in blood counts in lung cancer patients on chemotherapy.

Methods: Fourteen newly diagnosed lung cancer patients eligible for curative intent chemotherapy were randomly assigned to a resistance training group or to usual care. The resistance training group participated in a semi-supervised physical activity program utilizing resistance bands, three times a week for the duration of their chemotherapy. Outcome measures of white blood cell counts (WBC), red blood cell counts (RBC), hematocrit (HCT), haemoglobin (HgB) and platelets were assessed through serum blood analyses immediately prior to commencement of the chemotherapy regimen and again one week following completion. Repeated measures ANOVAs were used to examine changes in outcome measures.

Results: Overall WBC, RBC, HCT, HgB, and platelets decreased significantly over the course of the intervention (all ps<.05). A significant group by time interaction revealed that WBC declined only slightly from 7.90 x 103/µL (SD=1.21 x 103) to 7.86 x 103/µL (SD=4.4 x 103) in the resistance training group compared to a decline from 9.46 x 103/µL (SD=2.16 x 103) to 4.18 x 103/µL (SD=1.75 x 103) in the usual care group (p=.008, η2=.452).

Conclusions: The results of this intervention suggest that physical activity with resistance bands may have utility for attenuating declines in WBC in lung cancer patients on chemotherapy. These findings provide justification for larger studies to test the applicability of resistance bands as an economical, safe and easy to use method for improving outcomes in lung cancer patients during chemotherapy.

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C-034n

BLACK AND HISPANIC WOMEN FIND GREATER BENEFIT THAN NON-HISPANIC WHITE WOMEN IN THE EXPERIENCE OF BREAST CANCER DURING TREATMENT

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Objective: Despite the distress caused by the experience of breast cancer (BCa), some women are able to find benefits during treatment. This initial ability to find benefit has been shown to predict lower distress and depression up to 7 years after surgery. Prior work describing racial/ethnic differences in benefit finding with BCa is inconsistent possibly due to small sample sizes and heterogeneity in point in treatment. Methods: Women (N=371) with non-metastatic stage 0-III BCa were recruited 2-10 weeks post-surgery and prior to adjuvant therapy. ANCOVA analyses were conducted to determine the relationship between race/ethnicity (R/E) and Benefit Finding (BF) total and Family, Positivity and Acceptance BF-subscales, controlling for age, education, and income as well as disease stage and days since surgery. Results: Black women (M=67.13, SD=2.97) and Hispanic women (M=60.76, SD=1.40) found significantly more total benefit than did Non-Hispanic Whites (NHW) (M=49.33, SD=1.07), F(3, 327) = 24.15, p <.01, η2 = .181. Black women and Hispanic women also reported greater Family, Positivity, and Acceptance subscale scores than NHW women (all p’s < .01). Findings remained significant even when controlling for age, education, and income as well as disease stage and time since surgery. Conclusions: Black and Hispanic women report more BF than do NHW women after BCa surgery. These differences in initial BF, especially in the areas of Family, Positivity, and Acceptance may herald women’s adaptation to adjuvant treatment in the subsequent year and later quality of life, a focus of our ongoing research.

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C-034o

TRANSFORMATIVE LEARNING THEORY: CAN IT HELP US ENCOURAGE MAMMOGRAPHY SCREENING?

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Over 200,000 women are diagnosed with breast cancer each year, yet 25 percent of women fail to follow mammography-screening recommendations in spite of improvement in access to care and reduction of logistical barriers. Both stages of change (Prochaska, 1992) and transformative learning theory (Mezirow, 1975) suggest that a strong emotional or catalytic event occurs to move people from pre-contemplation to contemplation. There is evidence to show that this catalytic event promotes screening for many women yet others continue to ignore screening recommendations. Transformative learning theory suggests that the process of change includes a critical self-reflective component that goes beyond evaluation of external pros and cons to questioning internal and personal assumptions. The purpose of this project was to investigate responses to experiences that perpetuate non-screening and facilitate screening. Cognition, affect, perceptions, critical thinking, and critical self-reflection as related to mammography behavior were examined. Four focus group interviews were conducted with 24 rural women. The central theme that emerged was a dichotomous reaction to fear resulting in either the facilitation of, or impedance to screening. Fifteen women observed the cancer experiences of a loved one. While 10 of these women moved from non-screening to screening, five women became immobilized resulting in non-screening. Reasons for non-screening included fear of the personal impact of cancer, as well as distrust of mammography. Women who became immobilized demonstrated a lack of dialogue with others regarding mammography, a strategy that has the potential to promote critical self-reflection, and changes in perceptions and behavior. Interventions that facilitate dialogue may assist in creating opportunities for mindfulness, critical self-reflection, and a redirection of the fear influence. The next step in this research is to investigate how to facilitate changes in cognitive schema or habits of mind.

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C-034p

ILLNESS PERCEPTIONS, COPING, AND EMOTIONAL WELL-BEING IN POST-DIAGNOSIS PROSTATE CANCER PATIENTS

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Emotional well-being (EWB) has been shown to decrease following Prostate Cancer (PC) diagnosis and treatment; however, emotional adjustment often varies among men and throughout the PC experience. This may partially result from individual differences in coping strategies and cognitive illness perceptions. Few studies have investigated how PC patients' illness perceptions influence EWB, particularly during the diagnostic and pretreatment phases and beyond more traditionally studied processes such as coping. This cross-sectional analysis examined the contribution of illness perceptions of personal control, treatment control, negative consequences, and illness coherence, above and beyond coping strategies including active coping, planning, positive reframing, self-distraction, denial, and behavioral disengagement in predicting EWB in 191 men diagnosed with PC who had not yet received treatment (Mean age=62.8, SD=7.61; 44.3% non-Hispanic white, 26.6% Black, 26.6% Hispanics of any race, 1.5% other race). Initial zero-order Pearson correlations indicated that perceptions of greater personal control (r=.16, p=.046), treatment control (r=.26, p=.004), illness coherence (r=.29, p<.001), and fewer negative consequences (r=-.27, p=.001) were correlated with better EWB. Greater use of self-distraction (r=-.22, p=.003) and denial (r=-.27, p<.001) were associated with lower EWB. Other coping strategies examined were not related to EWB. Subsequent regression models indicated that when controlling for age, race, medical comorbidities, income, and self-distraction and denial coping, perceptions of personal control (β=.20, p=.013), treatment control (β=.24, p=.002), negative consequences (β=-.23, p=.004), and coherence (β=.30, p<.001) contributed to significant incremental variance in EWB. In addition to coping strategies, illness perceptions may play an important role in determining PC patients' emotional adjustment to PC diagnosis prior to treatment.

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C-049a

DEPRESSIVE SYMPTOMS AND ANGINA BURDEN IN ISCHEMIC HEART DISEASE (IHD) PATIENTS: THE COLLABORATIVE CARDIAC CARE PROJECT

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Little is known about the longitudinal association between depression and angina burden. Our goal was to evaluate the association between baseline (BL) and 1 y change in depression status, and angina symptoms. 668 Veterans were recruited into a prospective, cluster-RCT examining if collaborative care would improve angina, QoL, and guideline concordant care. Eligible patients scored ≤70 on the Seattle Angina Questionnaire (SAQ), i.e., angina ≥1/wk. Depression scores on the PHQ-9 were categorized into no symptoms (0-4), mild (5-9), moderate (10-14), moderately severe (15-19), and severe depression (≥20). Using PHQ-9 scores between BL and 1 y follow-up, the following categories were defined: "never depressed" (PHQ-9 <5 at BL and 1 y); "new onset" (PHQ-9<5 at BL, ≥5 at 1 y); "remitted" (PHQ-9≥5 at BL, <5 at 1 y); and "persistent" (PHQ-9≥5 at BL and 1 y). SAQ difference >5 was clinically important. GEE regression models controlled for the effects of clustering by providers. Age, gender, race, marital status, VA connectivity, BMI, smoking status, and treatment group were covariates. Patients were male (98%), 66 y/o, married (60%) and White 82%). At BL, GEE regression models indicated an association between PHQ-9 and SAQ, F(12,560)=15.1 (p<.01). Compared to "never depressed" , "severely depressed" patients scored 8.3 points lower on the SAQ Frequency scale; "new onset" patient scored 8, 12, and 11 points lower on the Physical, Satisfaction and QoL scale, respectively; and "persistently depressed" patients scored 7 points lower on the QoL scale (all p's<.05). "Remitted" patients scored 12 points higher on the Stability scale (p<.05). Depression was associated with angina burden and changes in depression were associated with changes in angina burden suggesting a pathway through which IHD patients report more depressive symptoms.

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C-049b

CARDIOVASCULAR EMOTIONAL DAMPENING: IS THERE A RELATIONSHIP BETWEEN BLOOD PRESSURE AND PERCEPTION OF RISK?

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The theory of cardiovascular emotional dampening states that persons with higher blood pressure have reduced response to emotionally meaningful stimuli. For example, negative correlations have been observed between resting blood pressure and 1) affective responses to pain, 2) ratings of emotional content in evocative photographic scenes, and 3) perception of emotional content in facial expressions and text passages. Dampening of responses to emotionally meaningful scenarios could have impact on decisions related to risk. This suggests that persons with cardiovascular emotional dampening may be more likely to engage in risky behaviors.

The present study examined the relationship between cardiovascular emotional dampening and risk behavior in 45 young adult women and men. Participants' resting blood pressure was measured with a Dinamap Pro 100 monitor. Participants then evaluated emotional expression in faces and sentences using the Perception of Affect Test (PAT). Finally, participants completed a risk attitude scale (DOSPERT) for assessment of risk perception, risk taking and risk benefits.

As in previous studies, total PAT scores negatively correlated with resting diastolic blood pressure [r(43)=-.340, p=.022] and mean arterial pressure [r(43) =-.338, p=.023], confirming cardiovascular emotional dampening in this sample. Multiple regression analyses showed that mean arterial pressure predicted perceived risk benefits independent of PAT scores [F(1,42)=6.152, p=.017], suggesting persons with higher blood pressure report increased perceived benefits of risky behavior. This relationship between higher blood pressure and increased perception of risk benefit was most apparent in the financial risk subscale [F(1,42)=7.884, p=.008]. We recommend additional research to more fully examine the relationship between blood pressure, emotional dampening and risk behavior.

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C-049c

SLEEP DURATION AND CARDIOVASCULAR RESPONSES TO STRESS IN HEALTHY UNDERGRADUATE MEN

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Short sleep is related to incident cardiovascular (CV) disease, including coronary heart disease, myocardial infarction, and stroke. Previous data suggest that changes in basal autonomic activity may be one pathway through which habitual short sleep increases CV risk. No studies have examined whether chronic short sleep is related to acute, autonomic responses to stressful stimuli in healthy populations. This study compared CV responses to laboratory stressors in a group of undergraduate males reporting habitual sleep duration of ≤6 hours per night (n = 37) versus those reporting habitual duration of 7-8 hours per night (n = 42). Participants wore a wrist actigraph for one week to assess sleep duration based on activity, in addition to self-reports. They then completed two cognitive tasks (Stroop color-word interference task, numeric multisource interference task) and a speech task while their heart rate (HR) and blood pressure (BP) were monitored. Reactivity and recovery indices of HR, high-frequency heart rate variability (HF-HRV) and BP were created by regressing task and post-task values, respectively, on baseline values. Participants reporting ≤6 hours of sleep per night rated stress tasks as more arousing, and they had higher HR during task recovery periods, than those reporting 7-8 hours of sleep (F (1, 78) = 7.4, p = .008); the two groups did not differ in any of the other CV parameters. Actigraphy-assessed shorter sleep was related to greater HF-HRV withdrawal during stress tasks (β = .28, p = .02), and with higher HR (β = -.26, p = .03) and diastolic BP (β = -.28, p = .02) during task recovery. Associations remained after adjusting for age, race, BMI, health behaviors, respiration, and a variety of psychosocial factors. Data suggest that men with shorter actigraphy-assessed sleep exhibit greater vagal withdrawal, and delayed HR and diastolic pressure recovery, upon encountering stressful stimuli. Such responses may have pathophysiological CV effects, and, thus, may be one mechanism linking short sleep to CV outcomes.

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C-049d

ADIPOSITY AND ASSOCIATED BEHAVIORAL FACTORS RELATED TO CAROTID INTIMA-MEDIA THICKNESS IN HISPANIC TYPE 2 DIABETIC PATIENTS

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Carotid intima-media thickness (cIMT) is a marker of subclinical atherosclerosis and has been shown to predict future cardiovascular events. Although increased cIMT has been observed among patients with type 2 diabetes (T2D) and obesity, data specific to Hispanic populations are lacking. This study examined how body mass index (BMI), waist circumference (WC), and associated behavioral factors (physical activity, smoking, perceived stress, and depression) related to cIMT in 115 Hispanic T2D patients (67.0% female; age: M = 55.0 years, SD = 7.5; duration of T2D: M = 7.2 years, SD = 7.1). Regression analyses were conducted adjusting for age, sex, and duration of T2D. Gender interactions were also examined for all analyses. WC was significantly and positively associated with cIMT (β = 0.214, p = .037) whereas BMI was not (β = 0.005, p = .268). WC remained significantly associated with cIMT independent of BMI (p = .036). Physical activity, measured using an accelerometer, was also significantly and inversely associated with cIMT (β = -0.046, p < .001). No significant associations between perceived stress (Perceived Stress Scale), depression (Beck Depression Inventory) or smoking (current or former smoking relative to never smoking) and cIMT were observed. No gender interactions were observed for reported associations. In a multivariate predictor model, only physical activity remained significantly associated with cIMT (p = .009). Consistent with previous findings, results suggest that adiposity is associated with cIMT in Hispanic T2D patients. However, WC appears to be a better correlate of cIMT in this population compared to BMI, suggesting an important role for visceral adiposity compared to a more general measure of obesity. Tailored interventions aimed at reducing adverse vascular outcomes in this patient population may benefit from targeting physical activity behaviors.

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C-049e

BEHAVIOUR CHANGE INTERVENTION BY NON-PSYCHOLOGIST PROVIDERS: CAN WE REDUCE CARDIOVASCULAR AND METABOLIC SYNDROME RISK IN A PRIMARY CARE SETTING?

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Primary health care is the ideal setting for prevention of cardiovascular disease, yet providers are not trained in behavior change interventions. The ANCHOR Project (A Novel Approach To Cardiovascular Health By Optimizing Risk Management) delivered behavior change training to health care providers in 2 Nova Scotian primary care clinics. Individual counseling using motivational enhancement, behavior modification and emotion management was delivered by nurses, dietitians and pharmacists trained by psychologists. 1509 participants (1093 completers) were assessed on risk factors, using the Framingham risk assessment, and health behaviors pre and post intervention. Framingham risk points showed a significant decrease from pre to post intervention (t(1029) = 4.790, p<.001). A significant number of behaviors changed in the sample when measuring reduction in refined foods, increase in fruit and vegetable consumption, decrease in alcohol consumption and increase in physical activity (t(905) = 45.094, p<.001). Number of behaviors changed was significantly correlated with reduction in Framingham points (r = .110). Number of factors meeting metabolic syndrome criteria were reduced from pre to post intervention (t(1092) = 12.107, p<.001). Reduction in number of factors meeting criteria was significantly correlated with number of behaviors changed (r =.127) and significance was maintained when including only those with metabolic syndrome at baseline (r = .116). Significant behavior change, sufficient to reduce cardiovascular risk and number of factors meeting criteria for metabolic syndrome, is achievable when patients receive one-on-one counseling from a health care provider trained in behavior change skills within a primary health care setting.

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C-049f

THE ASSOCIATION BETWEEN AGE, ANXIETY, AND OUTCOMES FOLLOWING CORONARY ARTERY BYPASS GRAFT SURGERY (UNPUBLISHED MASTER OF EDUCATION THESIS, UNIVERSITY OF HOUSTON. APRIL 2011)

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The goal of this study was to examine the association of age, anxiety, and outcomes following coronary artery bypass graft surgery. A retrospective analysis of the 2008 Nationwide Inpatient Sample (NIS) database was conducted. Multivariate regression analysis and logistic regression analyses were conducted. Three mediation models were conducted to examine a clinical diagnosis of anxiety as a potential mediator variable in predicting the relation between age and CABG outcomes length of stay, mortality (1=died, 0=did not die), and patient disposition (non routine= 0, routine=1). The findings of this study indicated that patients who died and experienced non-routine discharge status following CABG surgery were significantly older, sicker, and had the presence of anxiety comparable to those who lived, experienced a routine discharge status, and did not have the presence of anxiety. Moreover, anxiety was shown to partially mediate the relationship between age and outcomes following CABG surgery. Results from this study provide additional support for the importance of pre-surgery screening for anxiety as well as the development of short-term treatments for anxiety that may facilitate better outcomes following CABG surgeries.

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C-053a

BEHAVIORAL HEALTH CONSULTATION TRAINING: DIFFERENCES IN CLINICAL OUTCOMES AND THERAPEUTIC ALLIANCE ACCORDING TO LEVEL OF TRAINING

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Behavioral health consultation (BHC), also called primary care behavioral health (PCBH), is a cost-effective, efficient, and effective modality of mental health care for both mental health disorders (e.g., anxiety, depression) and clinical health problems (e.g., insomnia, chronic pain, diabetes, hypertension; Hunter, Goodie, Dobmeyer, and Oordt, 2009). No known research has empirically compared various PCBH training models. We explored training effectiveness across two different US Air Force training models (i.e., one month predoctoral vs. intensive one week respecialization; US Air Force, 2002). Effectiveness was defined as the clinical outcome (CO) and patients' self-reported therapeutic alliance (TA) rating. We used the Behavioral Health Measure-20 (BHM-20; CelestHealth Solutions,

2008) and Therapeutic Bond Scale (TBS; CelestHealth Solutions, 2008), respectively, across 205 PCBH appointments conducted by six trainers and fifteen trainees and compared the results between training models and among trainers. Bootstrapped independent samples t-tests revealed no differences in clinical outcomes (DM = -0.50; 95% C.I.: -0.22, 0.14; p = .575) between trainers and trainees although patients seen by trainers reported higher TA scores (DM = 0.26; 95% C.I.: 0.12, 0.40; p = .002). There were no significant differences in CO and TA between licensed trainees receiving one week of respecialization training, and predoctoral trainees receiving one month of training. Implications and limitations are discussed.

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C-059a

SELF-REPORTED PHYSICAL ACTIVITY IN UNDERSERVED ADULTS WITH TYPE 2 DIABETES

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Type 2 diabetes (DM)-related morbidity and mortality is highest in ethnic minority and low-income populations. Optimal self-care lowers risk, improving functional status and quality of life. Physical activity (PA) is an integral component of self-care, but is rarely assessed in routine clinical care and is underexamined in underserved adults with DM. This study aims to characterize PA in adults with type 2 DM recruited from low-income clinic and community care settings, using validated self-report measures. Ss were 253 Black (44.8%) and White (55.2%) Americans [M age=57.93 (11.52); 39.5% male;19% below the US poverty threshold, M BMI= 33.88 (7.99; 25.2% overweight, 63.6% obese)]. PA was assessed with the International Physical Activity Questionnaire (IPAQ) short-form, a measure developed for cross-cultural applications [M total PA mets per week = 44478 (2734.35)] and the Summary of Diabetes Self-care Activities (SDSCA) and the Personal Diabetes Questionnaire (PDQ) [M days per week reported active (SDSCA)= 2.73; total score M=2.54 (2.30)]. Men had more mets/week (p=.026), active days (p=.049) and weekly exercise sessions compared to women (p=.022). M perceived barriers to PA (PDQ)=2.23 (1.11) with women reporting more frequent barriers (p=.004). The top barrier across genders was pain, followed by scheduling conflicts. For women and men, respectively, the 3rd ranked barriers were discouragement due to lack of results and stress. BMI was negatively correlated with SDSCA -PA (p=.003) and barriers (p=.019) in women only. 68.8% of Ss reported that they had received physician recommendations to exercise (PDQ item), 27.7% reported that they had not received recommendations; 3.6% said don't know. Physician PA recommendations were reported more often by women overall (p=.044) and by obese men (p=.001) and women (p=.002). Results indicate low levels of PA relative to normative samples, with distinctly low levels in women. Specific delivery of physician recommendations to exercise, obesity and pain should be considered in approaches to delivering PA interventions in underserved adults living with DM.

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C-059b

EFFECT OF DIABETES DISTRESS ON SELF-CARE AND CLINICAL OUTCOMES AMONG PATIENTS IN THE SAFETY NET

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Diabetes self-management is complex and may be even more difficult for those with diabetes-related distress (DD). In this study, we sought to: 1) determine the prevalence of diabetes-related distress among safety net patients and 2) evaluate the association between distress, self-care behaviors, and clinical outcomes. Baseline data from a clinical trial evaluating the effect of an educational intervention on diabetes outcomes were analyzed. Interviews were conducted on 666 diabetic participants, age 18 to 85 to measure distress (Diabetes Distress Scale), medication adherence (Morisky Index), physical activity (BRFSS), nutrition (BRFSS) and sociodemographics. Clinical outcomes (HbA1c, systolic and diastolic blood pressure and LDL cholesterol) were obtained from medical charts. Results indicate that 13.8% of patients were clinically distressed. These patients were more likely to be younger, female and lower income, with greater comorbidity. Distressed patients were less adherent to medications (20.9% v. 36.0%, p=0.005) and had higher HbA1c (9.3(SD=2.0) v. 8.0(SD=1.7), p>0.001) and diastolic blood pressure (81.8(SD=9.4) v. 79.3(SD=9.1), p=0.02). Multiple linear regression models including relevant covariates found that DD is a significant predictor of low adherence (OR=0.56; 0.35-0.89; 0.01) and higher HbA1c levels (B=1.2; 0.70 - 1.72; <0.001), but not blood pressure. Overall, diabetes distress is prevalent and is associated with poorer self-care behaviors and glycemic control.

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C-059c

CULTURAL AND PSYCHOLOGICAL FACTORS IN ADHERENCE TO EXERCISE AMONG TYPE II DIABETICS IN CHILE

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The prevalence of diabetes is increasing worldwide and has become the primary public health challenge in Latin American countries. This study was designed to examine the role of cultural factors relevant to exercise compliance among Type II diabetics in Chile. Adherence was assessed using a biological outcome of overall diabetes treatment compliance (HbA1c) along with self-report measures of exercise compliance. The mixed methods, bottom-up cultural research approach to instrument development (Betancourt, Flynn, Riggs, & Garberoglio, 2010) was implemented to identify Chilean patients' cultural beliefs about exercise compliance and quantitative measures of the cultural factors relevant to diabetes were developed. As predicted based on Betancourt's Integrative Model of Culture, Psychology, and Health Behavior (Flynn, Betancourt, & Ormseth, 2011), several demographic factors were found to be sources of variation in the identified cultural factors. For instance, education (r=.359, p=.00), income (r=.289, p=.00), social status (r=.161, p=.025), and being male (t=2.799, p=.006) were associated with cultural beliefs about the appropriateness of exercise. Also consistent with the model, cultural factors were associated with psychological processes relevant to adherence behaviors. Specifically, cultural beliefs about the appropriateness of exercise were positively associated with self-efficacy concerning diabetes control (r=.234, p=.001). In addition, cultural beliefs about the benefits of exercise were associated with general adherence as measured by the biological measure HbA1c levels (r=-.145, p=.044) and self-reported adherence to exercise (r=.151, p=.041). Findings are discussed in terms of their implications for developing culturally based interventions designed to increase exercise adherence among diabetes patients in Latin America as well as Latinos in the US.

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C-059d

DIABETES DIAGNOSIS AND HEALTH LITERACY AMONG A PILOT SAMPLE OF ADULTS IN A PRIMARY CARE SETTING

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Currently 18.8 million Americans are diagnosed with diabetes and it is estimated that seven million more have the disease but remain undiagnosed. Research has consistently indicated that age, gender, education, socioeconomic status, and race/ethnicity are factors that impact the development of diabetes. Health literacy, the ability to comprehend basic health information, has also been identified as a factor in the development and progression of chronic illnesses such as diabetes. In fact, researchers suggest that health literacy is better indicator of health outcomes than fixed risk factors such as race/ethnicity and level of education. However, there currently exists a paucity of data providing conclusive evidence. The purpose of this study is to examine the relationship between diabetes diagnosis and health literacy within a primary care setting.

Participants (N = 58) were recruited from a primary care clinic in Eastern North Carolina. Diabetes status, demographic information, and socioeconomic status were assessed. Participants completed an electronic form of The Newest Vital Sign, which was used as a measure of health literacy. We hypothesized that diabetes diagnosis would be negatively related to level of health literacy.

Hierarchical logistic regression analysis was employed to determine a relationship between diabetic status and health literacy while controlling for demographic factors. Results indicated that non-diabetics participants were more likely to have a higher total health literacy score (OR =.498, 95% CI = .318-.782) compared to individuals with diabetes. Interestingly, diabetic status was not related to demographics. These results suggest that within the primary care setting, health literacy level is an integral factor related to diabetes diagnosis, above and beyond demographic factors. Future studies should include larger sample sizes and begin to examine how to modify current treatments to make them more effective for those in greatest need.

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C-059e

TELEPHONE MOTIVATIONAL INTERVIEWING TO IMPROVE ADHERENCE TO A DIABETIC DRIVING INTERNET INTERVENTION

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Internet interventions (IIs) are increasingly used to manage chronic illness, but their efficacy is limited by patient adherence. Our aim is to describe a Telephone Motivational Interviewing (MI) intervention to increase adherence to an II for Driving with Type 1 Diabetes (T1DM). The II helps people with T1DM reduce driving mishaps by avoiding extreme blood glucose while driving, and is being tested in an RCT. MI sessions were scripted for telephone administration, and recorded using a device in the ear of the interviewer. Recordings are used for supervision and to code for MI treatment integrity using the MITI. Each 45 minute MI session progresses through 4 recently-described MI processes (Engaging, Focusing, Evoking, and Planning). The goal of Session 1 is to increase the participant's motivation to complete the II. Therapists review a session agenda, and ask open questions to elicit the participant's experiences of driving with diabetes and their interests in participating, summarizing key points, then elicit concerns about diabetes and driving and interests in changing. They ask key questions and summarize change talk. The goal of Session 2 is to consolidate gains from the II and maximize motivation to keep up good diabetes driving habits, and includes eliciting and summarizing gains and planning. Therapists were 2 post-doctoral fellows and 4 undergraduate research assistants experienced with patients with diabetes. Training included 4 2-hour sessions on MI skills, and 2 hr sessions of practice of each session. Challenges included building rapport on the telephone, structuring sessions while eliciting participant perspectives, and keeping sessions on time. 4 of 6 therapists achieved acceptable MITI scores. We conclude that scripted Telephone MI can achieve fidelity and can be delivered after moderate training. The RCT will determine whether participants in the MI condition are more adherent to the Internet intervention, and have better outcomes.

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C-070a

USE OF THE INTERNET TO FIND SEXUAL PARTNERS AND HIV RISK BEHAVIOR IN TRANSGENDER ADULTS

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Prior work has documented increased HIV risk behavior in people who use the Internet to find sexual partners. Most work has focused on gay and bisexual men with a few studies focusing on heterosexual adults and youth. Prior work has not examined the use of the Internet to find sexual partners and HIV risk behavior in transgender adults. In the present study, transgender adults (N=105) completed an anonymous survey assessing demographic characteristics, substance use, use of the Internet to find partners, and sexual behavior. Overall, 37% of male-to-female (MTF) transgender women and 33% of female-to-male (FTM) transgender men reported meeting a sexual partner online. Among participants who met a partner online, the average number of lifetime partners met online was 2.85 (SD=2.93). Participants who met a partner online reported more total sex partners (M=1.74, SD=2.48) in the past 3 months than those who had not met a partner online (M=1.00, SD=1.21), Mann-Whitney Z = 2.03, p<.05. Participants who met a partner online also reported more total unprotected anal sex in the prior 3 months (M=1.19, SD=2.29) than individuals who did not (M=0.57, SD=3.07) Mann-Whitney Z = 2.24, p<.05. Participants meeting sexual partners online also reported more instances of drug use in conjunction with sex in the past 3 months (M=0.61, SD=1.52) than participants who did not meet a partner online (M=0.36, SD=1.15), Mann-Whitney Z = 2.02, p<.05. Prevention efforts directed at transgender adults who use the Internet to meet sexual partners are needed.

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C-070b

BEHAVIORAL, SPIRITUAL, AND SOCIAL FACTORS IN RECENTLY DIAGNOSED HIV-POSITIVE MILITARY MEMBERS

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Implications of being HIV-positive as an active duty (AD) military member have significantly changed in the past two decades since the Department of Defense developed guidelines to address diagnosis and treatment of HIV-infected individuals. The importance of a healthy lifestyle, social support, as well as positive spirituality, has been highlighted in recent civilian literature, although these factors have not been examined in a military setting. We are conducting an archival medical records review of AD members enrolled in a required HIV/AIDS program (N=43, all male). Descriptive results indicate that soon after diagnosis, 14% of 38 members reported positive changes to their fitness and/or diets, although 19% reported decreased fitness levels. Alcohol use was endorsed by 74% of 43 members and 18% of users reported decreased use after diagnosis. Tobacco use was endorsed by 12% of 42 members and 60% of users reported decreased use after diagnosis. Spirituality was reported as “very important” to 42% of 43 members, with 6.9% reporting the diagnosis has negatively impacted their spirituality. Preliminary analyses indicate higher spirituality importance is significantly related to satisfaction with family life (rho=0.323, p=0.037, two-tailed). Our early results suggest that some members respond to HIV diagnosis with improved health behaviors and coping through spirituality, and that those members who value spirituality have perceived happy family lives. Most of our sample reported high levels of spirituality, which is promising, since research suggests positive spirituality is related to slower disease progression and overall better quality of life. When complete, the database (N=84) will be analyzed with more advanced statistics to determine relationships between variables. Study findings will have implications for targeted interventions amongst HIV-positive AD members.

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C-070c

THE IMPACT OF THE ECONOMIC DOWNTURN ON HIV BEHAVIORAL INTERVENTION IMPLEMENTATION

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The recent economic downturn has affected funding for HIV behavioral prevention in the U.S., but there is a paucity of data on how funding reductions have impacted ongoing translation of evidence-based interventions. We examine how funding reductions impact the ability of public health departments (HD) and community-based organizations (CBO) to deliver behavioral evidence-based programs.

Method: Two approaches were employed. Using a database of agencies in the western region trained on a CDC DEBI (RESPECT) (n=80), we screened agencies for eligibility. Screening data were used to examine changes in agency intent to deliver RESPECT. Then, using a national database of trained agencies, we enrolled 30 urban and rural CBOs and HDs implementing RESPECT. We report on interviews with executive directors addressing fiscal changes and their impact.

Results: The screening study revealed a loss of agencies and of agency capacity. Fifty percent of agencies committed to participate in the study in 2008, did not enroll in 2009/10 because they no longer existed or were not delivering RESPECT. Analyses on participating agencies revealed that 57% had declines in RESPECT funding, 13% had increased support, and 30% had no funding changes. To accommodate funding reductions, agencies made organizational changes (e.g., reduced staff, increased workload), programmatic changes (e.g., modified program), and fiscal adjustments (e.g., re-distributed agency funds, cut contracts). Executive directors viewed the link to HIV testing as crucial, and expressed a strong desired to continue the program.

Conclusions: This qualitative study supports anecdotal evidence that funding reductions have resulted in reduced capacity to deliver behavioral interventions. While agency commitment to counseling and testing is high and agencies have been creative in adjusting to losses, there is concern that changes may impact program fidelity.

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C-070d

ANTICIPATED NEGATIVE EMOTIONS RELATED TO CONDOM NEGOTIATION BOTH FACE-TO-FACE AND VIA TEXT MESSAGES: THE ROLE OF GENDER AND RELATIONSHIP AUTHENTICITY

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Purpose: The purpose of this study was to explore the associations between anticipated negative emotions when engaging in condom negotiation (either face-to-face or using mobile phone text messages) and instances of unprotected sex, and the moderation of these associations by gender and relationship authenticity among a sample of mostly African-American young adults.

Methods: One hundred ten participants were recruited from the waiting room of an inner city STI clinic waiting room to complete a survey on condom negotiation (both face-to-face and via text messages), relationship characteristics, and previous sexual behavior.

Results: The pattern of results suggests a complicated relationship between the effects of gender, the medium used for condom negotiation, relationship authenticity, and how participants feel about condom negotiation on actual condom use. Controlling for condom attitudes, when negotiating face-to-face, anticipated negative emotions associated with negotiation had a main effect of more instances of unprotected sex in the previous month and was not moderated by gender or relationship authenticity. However, the effect of anticipated negative emotions for negotiation with text messages depended upon both gender and relationship authenticity. For women high in relationship authenticity, anticipated negative emotions had less of a negative effect on instances of unprotected sex than those low in relationship authenticity. For men, neither negative emotions regarding condom negotiation using text messages nor relationship authenticity had an effect on unprotected sex.

Conclusions: While condom negotiation has been well studied when done face-to-face, new media such as text messaging provides alternative methods for negotiation, which may have different effects on condom use depending on relationship.

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C-070e

PERCEIVED USEFULNESS OF AN INTERACTIVE CONCURRENCY EXERCISE AMONG AFRICAN AMERICANS IN WASHINGTON, D.C

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Background: In the United States, African Americans continue to be disproportionately impacted by HIV/AIDS. In Washington, DC, 4.7% of Black residents were living with HIV/AIDS at the end of 2009, comprising 75.2% of all cases. Black men carry the highest burden of disease, with 7.1% infected, and Black women were 14 times more likely to be living with HIV/AIDS than White women. Heterosexual contact is the leading mode of transmission in this community. In a recent study of high risk heterosexual relationships in the DC area, 45% of participants reported having sex outside of their relationship, and 46% believed their partner was engaging in this behavior. Mathematical modeling provides evidence that the sexual networks resulting from concurrent sexual relationships foster rapid HIV transmission. Formative research conducted in Africa showed that an exercise intervention helped individuals understand the concept of concurrency. Participants felt the information was relevant and important, described the exercise as "making sense," and inquired into the possibility offering this intervention to their children. This exercise has not been tested for use in the United States.

Methods: An interactive, non-technical exercise designed to illustrate the concept of concurrency and its connection to rapid HIV transmission was used as an activity in 10 focus groups (N=105) in Ward 5, 7, and 8 in Washington, DC. Data was collected to discern the acceptability of the exercise and the relevance of the message to participants' lives and community.

Results: The exercise received a very positive response. Feedback centered on the following themes: powerful visual element; simplicity; clarifies complex concept; naming a common behavior; increases awareness; and "eye opening".

Discussion: Participants' suggestions for improvement to the exercise are discussed, as are the project's efforts to shape an intervention that includes this exercise for use by community-based organizations.

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C-082a

STRATEGIES FOR IMPLEMENTING COGNITIVE BEHAVIORAL THERAPY IN THE PRIMARY CARE SETTING

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Little is known about implementing cognitive behavioral therapy (CBT) in the primary care (PC) setting. The current study reports preliminary data from a theory-based implementation strategy designed to increase the adoption and fidelity of CBT provided by VA Primary Care Mental Health Integration (PC-MHI) clinicians. Methods: Nine multidisciplinary clinicians were recruited from two large VA PC-MHI programs and trained in a structured brief CBT approach for medically ill Veterans. Multiple implementation interventions, based on the Promoting Action on Research implementation in Health Services (PARiHS) framework, were used to facilitate clinician training, including formative evaluation of clinician CBT utilization, skill needs, and clinical context, development of a comprehensive online CBT training program, audit and expert feedback of clinician CBT adherence and skills using structured fidelity ratings of session audiotapes, and bi-monthly facilitation meetings to address practice barriers and difficulties. Implementation also targeted system barriers and facilitators through PC-MHI directors and administrators. Results: To date, 31 participants have been randomly assigned to a clinician in the active treatment condition (usual care = 28). All study clinicians participated at least partially in the online training. Overall, clinicians had an average score of 70.4% on the online quizzes. Additionally, clinicians have attended an average of 61% of the bi-weekly facilitation meetings. Fidelity ratings by an expert reviewer suggest high levels of clinician adherence and skill with the brief CBT. Implementation challenges were encountered and will be discussed in detail. Preliminary results from this multisite trial suggest that utilization of CBT in PC-MHI is feasible but requires a multifaceted, flexible implementation approach that includes continuous feedback from stakeholders at various levels.

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C-082b

THE PSYCHIATRIC EMERGENCY RESEARCH COLLABORATION-03: VALIDATION OF THE PATIENT SAFETY SCREENER

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Background: Suicide is a major cause of death in the United States. Suicide screening is a necessary component of proper detection and treatment in medical settings, particularly in emergency departments. Currently, there is no efficient suicide screener validated for use in emergency departments.

Objectives: The purpose of the present study was to validate a brief, 3-item suicide screener, the Patient Safety Screener, with a sample of patients recruited from three hospital emergency departments. We hypothesized the Patient Safety Screener would demonstrate high concordance with the Beck Scale for Suicide Ideation.

Methods: We compared the Patient Safety Screener to a reference standard, the screening scale from the Beck Scale for Suicide Ideation (Beck). The Beck is a well-validated measure of suicide risk. We conducted universal screening of eligible patients over fifteen randomly selected days at each of three emergency departments. Participants responded to a survey that included both the Patient Safety Screener and the Beck.

Results: We enrolled 951 adult subjects. We performed reliability analysis using the Kappa statistic to determine agreement between the two screeners. The reliability between the screeners was very strong (Kappa = 0.95; $p < 0.001$). The overall classification agreement between the two scales was 99%. Using the Beck Scale as a gold standard reference, the Patient Safety Screener demonstrated high sensitivity (98%), high specificity (99%), high positive predictive value (94%) and high negative predictive value (99%).

Conclusion: Our results indicate that 3-item Patient Safety Screener is highly concordant with the Beck Scale for Suicide Ideation and has promise as a screening tool for use in emergency departments.

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C-082c

STAGE OF CHANGE FOR MULTIPLE BEHAVIORS IN VETERANS WITH AND WITHOUT PTSD

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Examining mental and behavioral health risk factors in U. S. military personnel returning from current deployments to Iraq and Afghanistan is of increasing importance. Research conducted following previous military conflicts has shown that deployment and exposure to combat result in increased risk of PTSD, major depression, substance abuse, functional impairment in social and employment settings, and the increased use of health care service. We examined stage of change for multiple behaviors in two samples of veterans — one group screened positive for mild-moderate PTSD; the second were screened only for smoking status. In the PTSD study, 75 (75% male; 68% White) were enrolled. The mean age was 41.2 (SD=11.2), with an average of 23.5 months' deployment (SD=16.7). In the smoking study, 481 veterans (58% male; 70% White) were enrolled. The mean age was 37.3 years (SD=10.8), with an average 8.5 years (SD=6.4) in the military. In both samples, more than 50% of veterans had been deployed to two or more countries —61% of those with PTSD, and 53% of smokers. In addition to smoking stage of change, veterans were asked to self-report their stage of change for depression prevention, stress management, alcohol misuse, exercise, sleep problems, and healthy eating. Veterans in the PTSD study were most at-risk for smoking (46.8% in precontemplation [PC] or contemplation [C]), alcohol misuse (32.5% in PC or C), sleep problems (53.1% in PC or C), and unhealthy eating (51.5% in PC or C). Veterans in the smoking study were most at-risk for smoking (71% in PC or C), sleep problems (40.5% in PC or C), and unhealthy eating (52.6% in PC or C). Returning veterans are at high risk for a number of negative health behaviors. Early intervention with this population is critical given that numerous studies have demonstrated that negative health behaviors have a significant impact on physical health, mental health outcomes, illness, and healthcare utilization.

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C-082d

DEPRESSIVE SYMPTOMS AND RISK OF POSTOPERATIVE DELIRIUM

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Objective: Previous studies have shown that elevated depressive symptoms are associated with increased risk of postoperative delirium. However, to our knowledge, no previous studies have examined whether various components of depression are differentially predictive of postoperative delirium among individuals undergoing non-cardiac surgery. Methods: One thousand twenty patients were screened for postoperative delirium (n = 1020) using the Confusion Assessment Method as well as through retrospective chart review. Patients underwent cognitive, psychosocial, and medical assessments preoperatively. Depression was assessed using the Geriatric Depression Scale (GDS). The association between components of depression and delirium was assessed using three separate models for each component of depression, after controlling for age, medical comorbidities, and executive function. Results: Thirty-eight patients developed delirium (3.7%). Using a factor structure previously validated among geriatric medical patients, we examined three components of depression as predictors of postoperative delirium: 1) negative affect, 2) cognitive distress, and 3) behavioral/social inactivity. In multivariate analyses, we found that older age (P = .011), greater medical comorbidities (P = .028), and poorer executive function (P = .004) were associated with greater incidence of postoperative delirium. Examination of components of depression showed that greater behavioral/social inactivity was associated with increased risk of delirium (OR = 1.473, P = .023) after controlling for demographic factors and medical comorbidities, whereas negative affect (OR = 0.654, P = .205) and cognitive distress (OR = 0.735, P = .421) were not. Conclusions: Components of depression are differentially predictive of postoperative delirium among adults undergoing non-cardiac surgery.

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C-082e

MEMORY IMPAIRMENT AND MORTALITY IN A NATIONAL COHORT OF OLDER PERSONS

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BACKGROUND: The overall death pattern of individuals with impaired memory has not yet been well described.

OBJECTIVE: To describe the risk of all-causes, as well as specific causes of death associated with impaired memory.

DESIGN: Longitudinal cohort study. We determined the hazard ratio (HR) of mortality for all causes and specific causes of death using Cox proportional hazard regression analysis.

PARTICIPANTS: A total of 4,151 nationally representative adults ≥ 60 years old who participated in the third National Health and Nutrition Examination Survey, 1988-1994, and completed two delayed-recall tests, were passively followed for up to 18 years.

MAIN OUTCOME MEASURES: Deaths due to the causes reported using ICD-9.

RESULTS: Severely and moderately IM were present in 268 (6.5%) and 495 (11.9%) participants. After we adjusted for age, sex, income, race, education and history of various diseases, including stroke, assessed at baseline, those with moderate and severe IM had a 24% [HR=1.65, 95%CI=(1.10 - 2.47)] and 56% increase in the risk of death for all causes compared with individual without IM. Severely IM was significantly associated with increased risk of death from heart diseases [HR=1.75, 95%CI=(1.41 - 2.18)], stroke [HR=2.65, 95%CI= (1.73 - 4.06)], and Alzheimer's disease [HR=3.53, 95%CI=(1.41 - 8.83)]. The shortened survival time, however, was mainly attributable to death of heart diseases and stroke and not Alzheimer's and unnatural causes.

CONCLUSION: The association of IM and mortality underlies the need to focus on prevention and management of cardiovascular diseases.

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C-082f

CONFUSION, FRUSTRATION, AND AMBIGUITY: THE CHALLENGES OF PROVIDING TRULY INTEGRATED BEHAVIORAL HEALTH SERVICES IN PRIMARY CARE

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There is substantial and increasing evidence that integrated behavioral health in the primary care setting improves patient outcomes (e.g., IMPACT, CALM). However, system barriers can diminish the feasibility of implementing evidence-based models of integrated care. In this study we interviewed primary care staff (i.e. physicians, nurses, administrative support staff) to identify key barriers to and priorities for improved integrated behavioral health in the primary care setting. Using purposive sampling (experience interfacing with behavioral health required), a random sample of primary care staff in a primary care clinic were invited to participate in an individual qualitative interview. Thirteen providers (100% response rate) were interviewed by a researcher (unaffiliated with the primary care practice) following a semi-structured script that assessed staff opinion of behavioral health access, availability, and integration. Qualitative data analysis involved methods of content analysis. Predominant themes included: primary care providers value on-site, coordinated care for their patients; behavioral health services can be difficult to access, and have limited availability; finding behavioral health resources for patients is frustrating, confusing, and is a process with many "loose ends." Based on this data, primary care and behavioral health providers at this primary care setting have initiated methods of system change (e.g., team formation, setting aims, establishing measures, plan-do-study-act cycles, implementation and spread; Institute for Healthcare Improvement). Our primary goal is to implement best practices related to behavioral health in the primary care setting, using a collaborative, interdisciplinary approach to overcome access and integration problems.

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C-082g

EMOTION REGULATION AND HEALTH: CHANGES OVER THE LIFESPAN

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Emotion regulation likely influences mental and physical health. Deficits in affect awareness and expression (alexithymia) and styles for regulating negative emotions (defenses) need to be studied, and lifespan changes in cognitive-emotional functioning may influence relationships between emotion regulation and health. This study examined how alexithymia and defenses are related to depression and physical symptoms in a large sample of adults, and whether age moderates these relationships. A sample of 380 community adults (54% female; 60.9% Caucasian, 39.1% African American) equally representing all age decades (teens through 80s; age

M= 48.3, SD= 18.8) completed the Toronto Alexithymia Scale-20, Defense Mechanisms Inventory, Beck Depression Inventory, and Health Symptoms Checklist.

Correlations showed that alexithymia predicted greater depression and physical symptoms. Use of defenses typically considered less mature (turning against others, turning against the self, and projection) were positively related to depression, as was not using defenses of intellectualization and denial/repression. Turning against the self and low projection also predicted physical symptoms. Multiple regressions, controlling for sex and race, showed that high alexithymia ($\beta = .30, p < .01$) and low use of intellectualization ($\beta = -.16, p < .05$) and denial/repression ($\beta = -.15, p < .05$) simultaneously predicted depression. Age moderated the latter's relationship; among younger people only (aged < 47), low denial/repression predicted more depression ($\beta = -.32, p < .01$). Also, alexithymia ($\beta = .05, p < .01$) and low projection ($\beta = -.05, p < .05$) predicted physical symptoms, but age moderated projection's relationship; among older adults only, less projection predicted physical symptoms ($\beta = -.05, p = .008$). In conclusion, emotion regulation and defenses may influence health reports, but some relationships change over the lifespan. Denial/repression predicts better health for younger people, whereas projection does so for older people—findings consistent with some theories of adult development.

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C-082h

COGNITIVE-BASED COMPASSION TRAINING IS ASSOCIATED WITH REDUCED SALIVARY C-REACTIVE PROTEIN AND IMPROVED PSYCHOSOCIAL FUNCTIONING AMONG ADOLESCENTS IN THE FOSTER CARE SYSTEM

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Introduction: Children in the foster care system experience high levels of early life adversity that place them at a greater risk for psychosocial difficulties, chronic disease and mortality. The current study examined the effects of a 12 session (over 6 weeks) Cognitive-based Compassion Training program (CBCT), a mindfulness-based program, on a specific inflammatory biomarker, C-reactive protein (CRP), and the psychosocial functioning of adolescents in foster care.

Methods: Participants were seventy-one adolescents (mean age=14.7±1.4 years, 56% female) residing in the foster care system who had been screened for severe psychiatric disorders and chronic illnesses. Current analyses examined the change in CRP levels and psychosocial functioning between an experimental and wait list condition. CRP was assessed through salivary cortisol and practice frequency via daily diaries.

Results: Within the CBCT group, practice frequency was correlated with a decrease in CRP at post-intervention. Practice frequency was higher in the last three weeks (mean=11.59, SD=16.37) compared to the first three weeks (mean=7.8, SD=8.33). Post-hoc analysis revealed a significant correlation between practice frequency in the last three weeks of the training and increased hopefulness (r=.38, p< .05) and a trend association with lower anxiety (r=-.35, p=.059). Improved conflict management was the most commonly reported applied use of CBCT.

Conclusions: More frequent CBCT practice was associated with greater decreases in CRP. Immediate benefits included self-reported improvements in anger management. Long-term benefits potentially include reduced inflammatory CRP; hence possibly reducing the likelihood of developing chronic illnesses in adulthood.

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C-086a

THE RELATION OF TRAUMA TO SOMATIZATION PHENOMENA: A LITERATURE REVIEW

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The literature on post-traumatic stress disorder (PTSD) and psychological trauma suggests a link between trauma experiences and somatization phenomena (medical symptoms which are not well accounted for by objective medical findings). The implication of this finding is that trauma causes somatization phenomena. The elusive nature of both trauma and somatization raises questions about whether the literature actually supports a causal link from trauma to somatization. To address this question we have undertaken a literature review focusing on the methodology of studies documenting the relation of somatization and trauma.

Using PsychInfo we searched the literature for articles containing both mention of trauma or abuse and mention of somatoform disorder, functional somatic syndromes, or medically unexplained symptoms. A subset of the retrieved articles was rated on a series of methodological features. We found that 95.8% of the studies employed retrospective recall exclusively. With regard to the assessment of trauma, the vast majority of studies employed some form of self-report, with only 12.3% of studies using independent documentation of trauma exposure. Over 95% of studies used adult participants, with the majority of these reporting on childhood traumas - only 15% of studies noted how long ago the trauma had occurred. With regard to somatization phenomena, 67% of articles failed to distinguish genuine physical symptoms and unexplained symptoms; 57.4% of studies used only self-report measures, 13.8% used interviews to assess somatization, and 25% used medical records. Only 35.1% of studies discussed the validity of their trauma or somatization measures.

Although there is a large number of articles describing a relation between trauma and physical symptoms, only a very small number contain all the methodological requirements for establishing a causal link from verified trauma to somatization experiences. Much of the available literature leaves open the neglected possibility that the connection between self-reports of trauma and self-reports of somatization reflects a common underlying self-report bias.

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C-086b

THE SOCIO-ECOLOGICAL DETERMINANTS OF HEALTH OUTCOMES: TOWARDS A CONTEXTUAL CONCEPTUAL AND MEASUREMENT APPROACH

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Mounting evidence directs attention to measure the social-determinants of health. There are several challenges in measuring socio-ecological elements including lack of multilevel instrumentation, items not established on population-based and longitudinal studies, and lengthy measures not validated via rigorous psychometric approaches with limited applicability to linguistic-minority groups. Thus, developing a comprehensive theoretical model articulating the socio-ecologic contexts and validating the associated instrumentation are compelling. Existing models including the World Health Organization's Commission on Social Determinants of Health (CSDH), Warnecke et al., (2008); Ashing-Giwa, (2005); Meyers (2009), Anderson (1998;1999), Parrish (2010) and Bilheimer (2010) were examined to provide a conceptual foundation for multilevel operationalization and measurement of the social-determinants. These models were integrated into the Contextual Model, and informed a brief instrument entitled Living Contexts Measure to assess the socio-ecological contexts. The Contextual Model articulates: Structural Determinants including sociopolitical and demographic context that generate and reinforce social-stratification (e.g., ethnicity, gender, age, discrimination), and socio-economic context (e.g., income, education, occupation, social class) and Intermediary Determinants (i.e., psychosocial, behavioral, environmental, biological, health system contexts) that shape health outcomes and are themselves multidimensional and categorized into domains. The Living Contexts Measure can serve as a screening tool to create a profile representing a person's socio-ecological "comorbid-status" or health-risk characteristics that can inform further assessments into targeted areas of concerns. The Contextual Model attends to the lived experience and offers a person-centered approach to examining how contextual factors influence health outcomes.

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C-091a

SCHOOL LUNCH DECISIONAL FACTORS AND TECHNOLOGY USE IN A SAMPLE OF HIGH SCHOOL STUDENTS

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Background: Although interventions that change food available to students in school settings have shown some success, it is also important to structure the environment so students choose these healthier options. One potential approach to improving decision-making, which has demonstrated efficacy in improving food choices, is the use of strategies based on behavioral economics, such as having students "pre-commit" to lunch choices and make decisions in less chaotic environments than the lunch line.

Objective: To identify the primary factors that affect student decisions about school lunch and determine the relative importance of different communication platforms in order to inform the design of a behavioral economics intervention intended to improve school lunch choices.

Methods: A survey (n=149), focus group (n=1) and structured interviews (n=19) were conducted with high school students. Descriptive statistics were calculated for survey results and a summary of key findings generated from the focus group and interviews.

Results: Participants were ethnically and racially diverse (21% Hispanic, 58% non-white). Most students reported cell phone ownership (88%) and Internet access at home (88%) with roughly half (51%) owning web enabled phones. Students' preferred form of electronic communication was texting (73%). Interviews and surveys revealed that taste, appearance and convenience were the most important lunch decision-making factors. Many (39%) reported making their lunch choice decision while in the cafeteria line. Interview data suggested that long lines deter some students from eating school lunch.

Implications: Text messaging could be an effective communication method for administering a behavioral economics intervention targeting school lunch choice in a high school setting. The intervention should emphasize taste, appearance, and convenience vs. health.

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C-091b

GREATER FAST-FOOD CONSUMPTION IS ASSOCIATED WITH POORER DIETARY PRACTICES, BUT NOT ANTHROPOMETRICS, IN OVERWEIGHT AND OBESE WOMEN FROM DISADVANTAGED NEIGHBORHOODS

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Purpose: To examine the relationships between fast-food consumption, dietary intake, and anthropometrics in women residing in financially disadvantaged neighborhoods in Columbia, SC.

Methods: Overweight and obese women (N=201) were recruited for a weight loss trial from census tracts in which at least 25% of residents lived in poverty. Three unannounced multiple-pass 24-hour dietary recalls were conducted and values averaged. Body mass index (BMI) was computed from measured height and weight. Waist circumference was measured in cm. Participants reported frequency of fast-food consumption in the past 7 days (0, 1-2, 3-4, or 5+ times). Regression models tested associations between fast-food consumption (IV), dietary components, and anthropometrics (DVs), after controlling for sociodemographics (age, race, education, employment, marital status) and physical activity.

Results: Participants were predominately African American (87%), obese (94%), employed (77%), with at least some college (80%). Participants averaged 38 ± 8 years with a mean BMI of 40 ± 9. Only 16% reported no fast-food consumption, whereas 44% reported eating fast-food 1-2 times, 24% 3-4 times, and 15% 5+ times in the past 7 days. Greater frequency of fast-food consumption was positively and independently associated with average daily total kcals; % of calories from total and saturated fat; total cholesterol; total meat; added sugars; sweetened beverages; and sodium, and negatively associated with low fat dairy intake. Fast-food consumption was unrelated to intake of dietary fiber, % of calories from carbohydrates and protein, whole grains, and fruits & vegetables; BMI; and waist circumference.

Conclusion: In an at-risk sample of women, greater fast-food consumption was associated with poorer dietary habits but not anthropometrics. Interventions should test whether targeting fast-food consumption improves dietary practices and reduces disease risk.

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C-091c

UNDERSTANDING BARRIERS AND FACILITATORS TO COMMUNITY GARDENING IN A LOW-INCOME, FOOD DESERT COMMUNITY

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Community gardens have been identified as a strategy to improve access to healthy foods. However, little is known on how to develop successful community gardens in low-income, food desert communities. Healthy Harvest, a program to develop a network of community gardens, constructed five community gardens at church sites in South Dallas, a predominately low-income, African American food desert community. Focus groups were conducted with 44 African American adults (mean age = 59.2 years; 80% female) approximately 9 months after community gardens were constructed to evaluate intrapersonal, interpersonal, and church related barriers and facilitators for community garden participation and sustainability based on Social Ecological Theory. Audiotaped discussions were transcribed and coded using grounded theory framework by two graduate students who achieved adequate inter-rater reliability (kappa = 0.67). Barriers to garden participation and sustainability were mentioned 43 times with lack of knowledge reported most frequently. Facilitators and benefits to garden participation were mentioned 103 times with interpersonal benefits related to social connections and access to fresh produce reported most frequently. Mental well-being was the most frequently reported intrapersonal benefit to garden participation. Improvements in planning (watering and planting schedules) and logistics related to distribution were most frequently discussed as ways to improve sustainability. Incorporating the garden into the church's overall mission may also be important to overall garden success. These findings provide preliminary information on how to improve participation and sustainability of community gardens as a way to improve access to produce in food desert communities.

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C-116a

THE ASSOCIATION BETWEEN ASSET POVERTY AND RACE IN A WOMEN'S OBESITY PREVENTION PROJECT IN RURAL NORTH CAROLINA

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Asset poverty is insufficient assets—the resources available in the absence of income—to allow a household to meet basic needs. During a recession, assets become as essential as income to supporting a healthy lifestyle. Since 1983, low-income households have become increasingly asset poor, particularly minority populations. HOPE Accounts is a randomized trial addressing asset building and obesity prevention among low-income women in 5 rural eastern North Carolina counties. Obesity interventions that address disparity determinants can enhance positive impact. This analysis explores the relationship between asset poverty and race in White, African-American (AA), and Native American (NA) women in rural North Carolina.

Adult women (n=368) completed self-administered surveys regarding banked and unbanked assets, material hardship, financial self-efficacy, and money management skills. The final analysis included 354 surveys. White women were most likely to report a checking and savings account ($p<0.001$). NA women had the highest and AA women the lowest unbanked asset scores (e.g. owning major appliances) ($p<0.001$). NA women report the most material hardship and the least financial self-efficacy ($p=0.001$ and $p=0.003$, respectively). Money management scores were not significantly different between groups. Regression analyses for unbanked asset score and race, controlling for income and education, suggest that NA women have 0.85 units higher asset score relative to AA women ($p<0.0001$). White women have 0.53 units higher score than for AA women but the difference was not statistically significant ($p=0.08$).

Results suggest disparity in asset poverty in rural North Carolina. AA women have the greatest economic insecurity. Disparities in income are strong predictors of poor health. Asset poverty could be an additional determinant of health outcomes. Future research will investigate this association, and the relative impact of asset vs. income poverty.

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C-116b

WEIGHT DISCRIMINATION, WEIGHT, AND PSYCHOLOGICAL FUNCTIONING IN ADOLESCENTS

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Studies have shown that obesity and weight-related teasing are associated with poorer psychological functioning in adolescents (Strauss et al., 2003; Libbey et al., 2008). Less is known about the perception of weight discrimination, and its effect on the relationship between weight and psychological functioning in adolescence. A total of 158 adolescents (M age 17 yrs; 48% female, 51% black), completed the Williams Discrimination Scale, Spielberger Trait Anxiety Inventory, Rosenberg Self-Esteem Scale, Center for Epidemiological Studies Depression Scale, Revised Life Orientation Questionnaire (pessimism scale), and the SCOFF, an eating disorder screening instrument. Height and weight were measured to calculate body mass index (BMI). Thirty-four (21 female) participants (21.5%) identified weight as a reason for experiencing discrimination. Hierarchical regression analyses, controlling for gender and race, demonstrated an interaction between weight discrimination and BMI in predicting depression, (β=.38, p<.01), pessimism (β=.26, p=.03), and anxiety (β=.24, p=.03). Follow-up analyses showed that among those who reported weight discrimination, greater BMI was associated with greater pessimism (p=.01), and marginally greater anxiety (p=.08) and depressive symptoms (p=.06), whereas among those who did not report weight discrimination, lower BMI was associated with greater depressive symptoms (p<.01). These findings are consistent with evidence for a U-shaped relationship between BMI and depression (de Wit et al., 2009). Logistic regression analyses, controlling for gender and race, demonstrated an association of BMI with increased odds of being classified as a potential case of an eating disorder based on the SCOFF (OR = 1.18, 95% CI [1.04-1.34]). There were no other significant interactions or main effects of BMI or weight discrimination. Findings suggest that weight discrimination is an important factor to consider in furthering our understanding of the relationship between weight and psychological functioning in adolescents.

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C-116c
INFLUENCE OF HOUSEHOLD MEMBERS' WEIGHT STATUS ON WEIGHT LOSS IN OBESE ADULTS

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Current evidence suggests that the social environment may impact weight gain and obesity. Specifically, similarities in weight status have been observed in social and family networks. Little evidence exists, however, regarding how participants in weight loss interventions are affected by other obese members of their household who are not enrolled in the program. In the current study, we examined whether having other obese individuals in the household affected the weight loss of participants in a weight management intervention. We hypothesized that individuals in households with at least one additional obese individual would lose less weight than individuals without any other obese individuals in the household. The study sample included 419 obese adults (M ± SD, age = 53.4 ± 10.7 years, BMI = 34.4 ± 8.5 kg/m2) who volunteered to take part in a weight-loss intervention focused on calorie reduction and increased physical activity. Weight was measured at baseline and after 6 months of treatment using a Tanita digital scale and information on household members was collected using the (modified) Stanford Eating Disorders self-report questionnaire. Results indicated that having an additional obese household member had a significant negative effect on weight loss, such that participants having at least one other household member who was obese had a significantly smaller reduction in percent body weight than those who reported being the only obese individual (M ± SD = 6.5 ± 6.3 percent versus 8.9 ± 6.5 percent, p = .008). This finding suggests that weight loss efforts of individuals enrolled in an intervention program may be negatively affected by having additional obese individuals within their household who are not concurrently enrolled in the program. Future weight loss interventions should consider the special challenges faced by participants living with other obese individuals.

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C-116d
OVERWEIGHT AND BODY IMAGE IN YOUNG CHINESE CHILDREN IN THE U.S., CHINA AND TAIWAN

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Background: Few studies have addressed the importance of familial, cultural, and environmental factors in relation to children's weight issues in Western countries, but no studies have examined the socio-culture-environmental interaction in childhood obesity and body image among Chinese children across multiple countries. Thus, this study aims to explore familial, cultural and environmental factors related to body mass index (BMI) and body image in young Chinese children in the U.S., China and Taiwan.

Methods: A cross-sectional study design was utilized. A total of 100 children (age 3-5) and their families participated in the study (U.S = 28, China = 47, Taiwan = 25). Parents completed a family eating and activity habit questionnaire, a child feeding practices survey, a child body shape pictorial list, and a demographic survey. Children had their weight and height measured.

Results: The mean age of the children was 4.43 (SD=1.05) and BMI was 16.23 (SD=3.08). About 49% of the children were boys and 18.7% of all children were overweight and/or obese. About 63% of fathers and 18.6% of mothers were overweight and/or obese. Linear regression models were used to explore factors contributed to child's BMI and body image. Results indicate that a father's elevated BMI is related to higher BMI in his children (R2 = .095, p = 005) and to less body image satisfaction in boys (R2 = .37, p = 002). For girls, less body image satisfaction is related to parental concern about the child's weight, older age, and live in the U.S (R2 = .244, p = 001).

Conclusion: Results suggest that father's BMI is a risk factor for Chinese children's BMI and body image dissatisfaction in boys while paternal concerns about child's weight and older age are associated with body image dissatisfaction in girls. Given the high prevalence of obesity in Chinese fathers and its risk to their children's obesity and body image, programs to reduce BMI in overweight and obese fathers are needed.

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C-116e
BELIEFS ABOUT OBESITY, WEIGHT PERCEPTIONS, AND MODIFIABLE OBESITY-RELATED BEHAVIORS IN A NATIONAL SAMPLE

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In the U.S., obesity rates have increased dramatically over the course of two decades. NHANES data indicates that 1 in 3 adults and approximately 17% of children and adolescents are obese. Although some are genetically predisposed to obesity, modifiable behavioral contributions; food consumption, physical and sedentary activity, are attributed to the increase in prevalence. Self-perceptions and beliefs regarding weight as well as beliefs about the origins of obesity influence behaviors to improve weight status. Objectives: To explore the extent to which people who (a) perceive themselves to be overweight and (b) who are obese (based on BMI) have different beliefs about the origins of obesity, recommended fruit and vegetable consumption, and exercise than others in different weight classes and how this affects decisions to lose weight. The 2007 HINTS data were analyzed. Multinomial and logistic regressions were used to analyze obesity-related questions. Participants who perceived themselves as overweight were less likely to believe that genes determined weight and reported lower numbers of recommended servings of fruits and vegetables than those who perceived themselves in other weight classes. Obese participants were less likely to believe that genes determine weight status than underweight, normal weight, and overweight participants. Higher weight perception, positive health status, and beliefs of obesity related to food consumption and exercise were related to participants trying to lose weight. Higher levels of psychological distress were somewhat positively related to participants trying to lose weight. Participants who perceive themselves to be overweight and those who are obese placing less emphasis on the role of genes in obesity are encouraging for intervention efforts. The relationship between psychological distress and weight loss decisions highlights the role psychologists can play in helping patients succeed; as psychological distress is related to reduced exercise and increased emotional eating.

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C-116f
WHAT TYPES OF WORKSITES PARTICIPATE IN WEIGHT LOSS TRIALS?

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From a RE-AIM perspective little is known about the potential adoption of internet-based weight loss programs in worksite settings. Adoption can be defined as the number, proportion, and representativeness of participating worksites within a given study. The purpose of this poster is to describe the process and outcomes associated with adoption for the Worksite Weight Control Trial. Specifically we a) describe how worksites were identified for participation on the project, b) determine total number of eligible worksites, and c) compare participating worksites to non-participating eligible worksites. Potential worksites were identified through a variety of approaches including 1) contacting local Chambers of Commerce and business associations, 2) advertisement in major newspapers in area, 3) television news coverage, 4) contacting health insurance carriers, 5) using internet searches for websites devoted to economic development in local counties, and 6) going through local phone books and identifying potential worksites. A total of 119 worksites were identified as potentially eligible (i.e., based on size, access to internet, and willingness to conduct a worksite wide brief health survey). Seventy-three were eligible, 28 (38.3%) enrolled, and 26 completed the 12 months of intervention (35.6%). These sites included 4 medical facilities (14.3%), 6 manufacturing and distribution centers (21.4%), 5 professional groups in law, advertising, engineering, sales, and information technology support (17.9%), 2 call centers (7.1%), 4 small colleges and universities (14.3%), and 7 governmental agencies (25%). There were no statistically significant differences in adoption rates based on type. However, there were trends suggesting professional groups (69%) and small colleges (71.5%) were more likely to decline participation, and manufacturing sites (46%) and governmental agencies (41%) more likely to join. While these findings suggest the programs were acceptable to a variety of worksite types, internet-delivered programs may not be as attractive for decision-makers from professional groups and small colleges.

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C-116g
DIFFERENCES IN WEIGHT PERCEPTION BETWEEN DEAF AND HEARING COLLEGE STUDENTS

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The Deaf and hard of hearing (D/HOH) populations are underserved groups with scant research on health knowledge or behaviors. This paper explores weight perception between D/HOH and hearing students. Both D/HOH (n=200) and hearing (n=578) college freshman at an Upstate New York university completed a cross-sectional survey (September-October) that captured demographic characteristics, self-reported height and weight, and weight perception. Body mass index (BMI) was calculated from self-reported height and weight. There were no differences in the prevalence of overweight and obesity between the two groups, but there were differences in perception. Among D/HOH students 6% were underweight, 64% were normal weight, 21 % were overweight, and 10% were obese. Interestingly, 27% of the D/HOH students described themselves as overweight and 4% described themselves as obese. Among hearing students, 8% were underweight, 64% were normal weight, 19% were overweight, and 10% were obese. While 31% of the hearing students described themselves as overweight and 3% as obese. Overall, obese students were less likely to accurately classify their weight (OR=0.20; 95% 95% CI=0.07, 0.61) compared to normal weight controlling for age, gender, hearing status, race/ethnicity, parental education, and the interaction between BMI and hearing status, with no significant differences between D/HOH and hearing students. For overweight students, a significant interaction was found between weight status and hearing status. Overweight hearing students were more likely to classify their weight accurately relative to normal weight hearing students (OR=1.71; 95% CI=1.05, 2.78), but this effect was not seen with D/HOH overweight, normal weight, or underweight students. Excess weight and obesity remain a public health concern. Differences in perception of overweight between D/HOH and hearing college students suggest the need for tailored awareness raising strategies for the D/HOH population.

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C-116h
EVALUATION OF A WEIGHT MANAGEMENT INTERVENTION AMONG PREGNANT LATINAS

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Latinas have higher rates of overweight and obesity when they become pregnant, experience higher rates of excessive weight gain during pregnancy (GWG), and experience more maternal and neonatal complications compared to non-Latinas. Few researchers have attempted to improve diet and physical activity (PA) among pregnant Latinas. We present results from a randomized trial among Latino couples whose aims were to help expectant fathers quit smoking and help pregnant Latinas improve their eating and PA behaviors. Couples were randomized to a minimal intervention that included only written materials (Fit for Two: Tips for Pregnancy, NIDDK, 2009) or materials plus face-to-face and telephone counseling. Counselors used motivational interviewing to help women set goals to increase fruit and vegetable intake, reduce fat intake, and increase PA. We assessed women at baseline and the end of pregnancy to examine both time trends during pregnancy and arm differences in changes in the three outcomes. We have enrolled 239 women to date. The mean age is 28.0, and 93% have completed HS or less. The majority had been pregnant previously (86%) and spoke only Spanish (84%). Most women were overweight (33%) or obese (27%) prior to becoming pregnant, with a mean BMI of 28.9. Time trends suggest that women in both arms decreased fruit and vegetable consumption (p=.0065) and increased fat intake from baseline to end of pregnancy (p=.0001). No significant changes occurred in PA over time. We found arm differences in fat intake with women in the control arm increasing fat intake more than women in the intervention arm (p=0.08). We found no significant difference between arms in fruit and vegetable consumption (p=.40) or PA (p=.63). Preliminary findings suggest that a couples-based approach might prevent Latinas from increasing fat intake throughout the pregnancy. A minimal intervention was not helpful in preventing unhealthy behaviors during pregnancy. Because GWG among Latinas is a significant public health issue, more research is needed to determine the optimal intervention approach.

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C-116i
PUBLIC INTEREST IN GENETIC TESTING FOR OBESITY RISK: AN ONLINE SURVEY

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Background: Advances in genomic technologies are rapidly leading to new understandings of the role that genetic variations play in obesity. Little is known about whether the public is interested in receiving personalized genomic information about obesity risk, nor what characteristics are associated with such interest. The aim of this study was therefore to examine levels of and factors associated with public interest in genetic testing for obesity risk.

Methods: This was an online survey of 1,207 individuals in the US who were recruited using a market research company. Fifty-two percent of respondents were female; 80% were White; 31% had a high school education or less; and 66% self-identified themselves as slightly or very overweight.

Results: Overall, 60% of respondents expressed interest in receiving personalized genomic information about their risk of obesity. In multivariate analysis, interest in receiving personalized genomic information about obesity was positively associated with genetic causal beliefs, family history of obesity, and body mass index (BMI).

Conclusions: The results of this study suggest that the public is open to the idea of genetic testing for obesity risk, at least when provided with minimal information on the topic. Establishing public acceptance of personalized obesity genetic information is a first step towards assessing the potential feasibility, and ultimately the utility, of incorporating genomic information into obesity prevention efforts.

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C-116j
RELATIONSHIPS AMONG SLEEP, SES, PHYSICAL ACTIVITY AND BMI AMONG RURAL, PRE-MENOPAUSAL BLACK WOMEN

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Identifying underlying factors that contribute to obesity in Black women could assist in weight loss and weight gain prevention efforts. Lower income, lower education and being African American have been shown to be related to shorter sleep duration. Emerging evidence suggests that sleep quality might attenuate associations of income with health outcomes in some populations. In this secondary data analysis from an ongoing RCT for obesity prevention in overweight Black women, we examined the baseline relationships among sleep characteristics (quantity and quality) and demographic variables (e.g., age, income, education, number of children, marital status), self-reported physical activity (PA), and objectively measured BMI. Eligibility criteria for the study included being Black, female, ages 25-45, a BMI of 25-39, and receiving primary care at a federally qualified health center. At baseline, 189 female participants were administered a demographic questionnaire, the Medical Outcomes Study (MOS) Sleep measure containing the following scales: Sleep Disturbance, Snoring, Short of Breath, Sleep Adequacy, Somnolence, Sleep Problem Index I and II, Sleep Quantity, and Optimal Sleep, the BRFSS PA questions, and BMI. Results indicated that higher levels of Sleep Disturbance, Short of Breath, Somnolence, and both indices of Sleep Problems were associated with lower income levels (p's<0.05). Higher levels of Short of Breath and Somnolence were related to lower education (p's<0.05). Quantity of sleep, Somnolence, and both Sleep Problems indices were inversely associated with the presence of ≥2 children (p's<0.05). There were no significant associations between sleep (quantity nor quality) with PA nor BMI. Addressing sleep quantity and quality in weight prevention interventions, particularly for the impoverished, should be further explored.

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C-135a

PSYCHOLOGICAL PREDICTORS OF HEALTH-RELATED QUALITY OF LIFE IN SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

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Systemic lupus erythematosus (SLE) is an autoimmune disease that can lead to major impairments in functional adaptation and quality of life in many patients. A longitudinal study was conducted to examine the contribution of disease activity and psychological factors to HRQOL in a sample of 125 adult Latino and Caucasian SLE patients who were recruited from academic medical settings in the greater Southern California area. The LupusPro, a valid, newly developed disease specific outcomes measure for SLE, was administered at baseline and three months later. HRQOL and non-HRQOL subscales served as criterion variables. Baseline multiple regression analyses revealed that lower depression, b=-.69, p<.001, and higher internality (perception of control), be=.20, p<.01, were related to higher HRQOL, while lower depression, be=-.24, p<.05, was related to higher nonHRQOL. Longitudinal analyses showed that lower depression, b=.-49, p<.001, and higher internality, be=.25, p<.01, predicted greater HRQOL, while lower depression, be=-22, p<.05, lower helplessness, be=-.21, p<.05, and higher internality, be=.25, p<.05, predicted greater nonHRQOL. Neither objective nor self-reported measures of disease activity, ethnicity, or demographic factors contributed to baseline or longitudinal HRQOL or nonHRQOL when they competed with psychological factors in regression analyses. These findings underscore the importance of depression, helplessness, and internality in the functional adaptation to SLE in this mixed sample of Caucasian and Latino patients residing in Southern California.

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C-135b

A SOCIAL RE-ENGAGEMENT MECHANISM IN A WEB-BASED HEALTH INTERVENTION

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Adherence is a well-recognized challenge in web-based interventions. Nonusage attrition refers to the decay in utilization of an intervention, reducing program content exposure and consequently the efficacy of the program. We developed a re-engagement mechanism to address nonusage attrition in a web-based intervention using social "nudges". This mechanism tracks individuals' activity in the program, identifies dormant participants (i.e. inactive for 5-30 days), locates a friend of the participant in the intervention and prompts the friend to send the user an email encouraging them to re-engage in the program.

As part of a quality improvement process, we evaluated the effectiveness of the system as a re-engagement mechanism in a randomized controlled study. We enrolled 4,402 members of the web-based intervention "Daily Challenge" (MeYou Health LLC). We randomly assigned dormant members to one of four groups: "control" (no re-engagement nudge), "system" (a traditional system-generated email), "single" (a single social encouragement) or "multiple" (unlimited social encouragements). We recorded dormant members' activity over a 10-day period; treatment dose (system or social emails) was delivered in the first 3 days.

A social encouragement re-engaged dormant participants, and did so more effectively than the traditional mechanism. Recipients of a (single) social encouragement showed higher activity than participants who received a non-social nudge, opening more intervention emails (27.6% vs. 22.2%, p < 0.05), visiting the site on more days (2.5 vs. 2.0 days, p < 0.05) and completing more healthy actions (2.3 vs. 1.9 actions, p < 0.05). These participants opened 20% more social than non-social nudges (36.9% vs. 30.9% of emails opened; p < 0.05). Individuals receiving multiple social nudges were uncommon and an observed higher re-engagement rate was not statistically significant. Challenges in the implementation of social encouragements will be discussed.

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C-135c

THE ROLE OF HEALTH LITERACY AND PATIENT ACTIVATION IN EXPLAINING FUNCTIONAL HEALTH STATUS AMONG OLDER AMERICAN ADULTS

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The Institute of Medicine (IOM) defines health literacy as a skills-based construct independent of volitional elements, while the World Health Organization (WHO) includes motivation as a key part of its definition. In this sample of older American adults, we tested the IOM hypothesis that health literacy operates independently of patient activation (a non-illness-specific measure of motivation and self-efficacy for health self-management) when predicting functional health status. In this cross-sectional observational study, 697 individuals aged 65 and over were recruited from primary care clinics and federally qualified health centers. Participants completed measures of health literacy, patient activation and functional health status (depression, anxiety and physical function). Adequate health literacy was achieved by 68.7% of the sample and 83.5% were in the highest category of activation. Multivariable models predicting functional health status were produced. Health literacy and patient activation were entered, while controlling for sex, age, race and comorbidities. There was a small but significant relationship between health literacy and patient activation (rs=.11, p<.01). Worse physical function was significantly predicted by lower health literacy (β=-.13, p<.001) and lower patient activation (β=.19, p<.001). Higher depression was significantly predicted by lower health literacy (β=-.16, p<.001) and lower patient activation (β=-.27, p<.001). Higher anxiety was significantly predicted by lower patient activation (β=-.24, p<.001) but not health literacy (β=.07, p>.05). The explanatory power of the regression models for physical function and depression were significantly higher when entering the health literacy and patient activation together rather than separately (p<.001). Our findings support the IOM definition of health literacy. Supplementing behavioral medicine research with health literacy measures can significantly improve the explanatory power of models.

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C-135d

THE DEVELOPMENT OF THE FUNCTIONAL WELL-BEING SCALE (WBA-F): A MORE INCLUSIVE MEASURE OF GENERAL PRODUCTIVITY

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Most measures of functioning focus on workplace productivity loss with a health-related emphasis on presenteeism and absenteeism. Limited research has addressed general productivity or functioning loss outside of the workplace related to the health and well-being of individuals. The purpose of the present study was to develop and validate a more inclusive measure of functioning by focusing on overall well-being and general productivity. Data from 642 participants were collected as part of a larger randomized clinical trial. Mean age of participants (83% white and 57% female) was 50.39 and roughly 52% reported being employed. Exploratory and confirmatory analyses were run using split-half cross-validation. Principal components analyses resulted in ten items capturing the desired breadth of the construct. Item content examples included functioning related to health, personal problems and caring for others. Factor loadings ranged from .53 to .82 with good internal consistency (alpha=.86). Confirmatory factor analysis confirmed the one-factor structure of the exploratory model [X2 (35)=243.2, CFI=.848, AASR=.05]. Factor loadings ranged from .48 to .85 (alpha=.88). Evidence of external validity was established using correlations and ANOVA tests across demographic variables and measures of presenteeism, health and well-being. A significant relationship (r=.53) was found between the WBA-F and work-related presenteeism. Significant differences were found for gender, age, employment status, overall health and life evaluation. Men reported more functioning loss than women. Lower functioning was seen in younger and unemployed participants. Those reporting poor health had significantly more functioning loss compared to those with better health status. Individuals categorized as suffering reported more functioning loss compared to those considered struggling or thriving. Results suggest that the WBA-F is a reliable and valid measure of overall functioning related to well-being in the general population of both employed and unemployed individuals.

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C-135e

MEASUREMENT INVARIANCE OF THE SF-12 ACROSS ETHNIC GROUPS AMONG WOMEN IN POSTPARTUM

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Purpose: The purpose of this study was to examine differential item functioning (DIF) as a plausible cause of subgroup variation in the short-form health survey (SF-12).

Methods: Cross sectional secondary data analysis of postpartum women (n = 655) who participated in a prospective cohort longitudinal design was conducted. A Multiple Indicator Multiple Cause (MIMIC) model was used to examine DIF among these subgroups of women.

Results: Items 1 “self assessed general health”, 8 “bodily pain”, and 9 “calm and peaceful” all indicated DIF. However, only DIF effects of African-Americans endorsing item 8 (OR = 2.11, CI95 = 1.20, 3.71) and Hispanics endorsing item 9 (OR = 2.62, CI95 = 1.64, 4.17) signified meaningful effect sizes as indicated by the Odds-Ratio values. Supplementary assessment using social support as a mediator in the item 1 “self assessed general health” DIF effect revealed a significant relationship. Specifically, social support partially mediated the DIF effect for both ethnicities. Employing both social support and parity as mediators yielded a significant relationship for item 8. Both mediators partially mediated the DIF effect for African-Americans but only social support partially mediated the DIF effect for Hispanics.

Conclusion: The results of this study reveal items 8 “bodily pain” and 9 “calm and peaceful” as biased towards Hispanics and African-Americans, respectively, after matching on overall mental or physical health, compared to Caucasian women. However, utilizing mediation analysis explained the DIF effects and provided more understanding of the bias towards these ethnicities. Implications of this study are to use more than one method to assess DIF and to use psychological theory to explain the DIF effects through mediation analysis.

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C-135f

RE-VALIDATION OF THE HOSPITAL ANXIETY AND DEPRESSION SCALE (HADS) IN PATIENTS WITH MULTIPLE SCLEROSIS (MS) FROM AN OUTPATIENT CLINIC IN THE UNITED STATES

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Research has found that anxiety is commonly comorbid with depression for individuals with Multiple Sclerosis (MS). Previous studies have utilized the Hospital Anxiety and Depression Scale (HADS) as a measure of anxiety and depression for individuals with MS. The HADS is a 14-item self-report questionnaire designed for use in medically-ill patients that alternates questions about anxiety and depression. The HADS does not include symptoms that may involve a physical (disease related) cause, and therefore it can be advantageous to use in a MS sample. However, there is little research on the dimensional structure of the HADS for individuals with MS living in the United States. It has been validated outside of the United States in a Dutch speaking sample, with evidence for a two-factor solution. We examined the psychometric properties of the HADS for 110 patients at an outpatient MS Center in the US. Factor analysis was utilized by an exploratory principal-components analysis (PCA) on the HADS items with an unforced rotation (promax with Kaiser Normalization). The number of factors was determined based on the scree-plot. Results indicated a two-factor solution, corresponding to the original two subscales of the HADS. The first factor accounted for most of the variance (43%) with the second factor accounting for an additional 12.4%. Anxiety symptoms and depressive symptoms were highly correlated ($p<0.01$). Using established HADS cut-offs, the prevalence of clinically significant anxiety symptoms was 39.1% and 26.4% for depressive symptoms in this sample. Future research should establish clinically meaningful cut-off scores for screening purposes in a MS population, as well as clinically meaningful change scores for MS patients undergoing treatment.

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C-135g

BISEXUALITY AS A SPECIFIC RISK FACTOR FOR HEALTH-RISK BEHAVIORS: A REVIEW OF THE LITERATURE

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Ample research suggests that lesbian, gay or bisexual (LGB) individuals engage in health-risk behaviors at higher rates than heterosexually-identified individuals. Engaging in these behaviors may be a form of "stigma management," or a means of dealing with stresses that are specific to belonging to a minority. Research on health-risk behaviors with LGB individuals has often categorized sexual identity as a binary with "heterosexual" as one group and LGB individuals combined into a single category. However, emerging research has demonstrated that bisexual people (individuals of either sex, who have sex with both sexes) may engage in risk behaviors at different rates and for different reasons than either entirely heterosexual- or homosexual-identified individuals. The objective of this review is to highlight research that has examined health-risk behaviors in the bisexual population. Specific behaviors include: tobacco use, alcohol or other substance abuse, unsafe sex practices, and non-suicidal self-injury (NSSI; the deliberate self-harm of the body that is not socially sanctioned). The results of the review show that bisexuals, as a separate demographic, consistently engage in these risk behaviors at higher rates than either entirely heterosexual or homosexually-identified individuals. It is therefore recommended that researchers and clinicians be aware of, and account for, bisexuality in research and practice.

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C-135h

SOCIOECONOMIC STATUS AND HEALTH: THE ROLE OF SOCIAL COMPARISON

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There is an established graded association between socioeconomic status (SES) and health. Current research is focused on identifying the mechanistic pathways responsible for this relationship. This study aimed to determine if social comparison (SC) mediates the SES-health relationship. General associations between SES, health, and SC were also explored. A community sample (N=182) from the New York City area was surveyed to assess SC related emotion (Direction of Comparison Scale), frequency of SC (Frequency of SC Scale), SES (income, education), Self-Rated health (SRH), depression (Center for Epidemiological Studies Depression Scale) and anxiety (Spielberger Trait Anxiety Inventory). Regression analyses show that high SES predicts low frequency of SC ($p<.01$) and less frequent comparing with individuals with the same occupation ($p<.01$). SES is significantly correlated with SC-produced emotions; high SES individuals engaging in SCs are less likely ($p<.01$) to experience negative emotions (anxiety, frustration, depression, fear). SES was significantly related to depression ($p<.05$). Negative emotions produced by upward SC, downward SC and general SC (no direction specified) predicted higher levels of trait anxiety ($p<.05$). Finally, a significant interaction effect was observed between frequency of SC and positive SC-produced emotions on SRH. Results show that the function and role of social comparison is SES-dependent. Individuals with higher incomes compare less frequently in general, less frequently with those that are socioeconomically similar, and are less affected by comparisons. Negative SC-related emotion is associated with trait anxiety. Positive SC-produced emotion mediates the relationship between increased frequency of SC and higher self-rated health. Overall, social comparison may be used to explain some SES-health associations. Future research should continue to explore these relationships and begin to utilize social comparison constructs in health interventions and health promotion efforts.

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C-144a

CHRONIC PAIN AND SUICIDALITY IN MILITARY PATIENTS

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Growing evidence indicates chronic pain conditions increase vulnerability to suicide, which is the second leading cause of death for military personnel in the U.S. Armed Forces. Improved survival rates among OEF/OIF casualties have led to increased prevalence of chronic pain conditions amongst military personnel. Various cognitive processes, perceived support levels, and demographic variables have been identified as contributory to suicidality, but no systematic studies to date have considered all of these mechanisms underlying suicide risk in a chronic pain population. Military members, family members and retirees with chronic pain are currently being recruited in three clinics for this study (Pain Medicine, Orofacial Pain, Clinical Health Psychology), with the aim of better understanding intercorrelations among variables known to contribute to suicidality. Preliminary findings (N=20) indicate that suicidality is significantly related to relationship status (non-parametric corr = 0.504, p=0.023; t = -2.475, p=0.023), and females (n=12) have significantly greater risk of suicidal ideation compared to males (RR=1.500; 95% CI 1.005-2.238). Perceived Burdensomeness emerged as significantly related to Chronic Pain Catastrophizing (rho=0.680, p=0.001, two-tailed) and Fear Avoidance (rho=0.454, p=.044, two-tailed), while Belongingness is significantly related to Chronic Pain Catastrophizing (rho=0.688, p=0.001, two-tailed) and suicidality (rho=0.553,p=0.011, two-tailed). Final results will have implications for improved effectiveness of assessment and treatment of military patients with comorbid suicidality and chronic pain.

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C-144b

QUALITY IMPROVEMENT FOR SYMPTOM CONTROL IN UNDERSERVED CHINESE CANCER PATIENTS

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Chinese Americans are the largest Asian subgroup and many are recent immigrants. Cancer is the leading cause of death for these patients but there are few culturally-relevant pain interventions. This ongoing community study aims to: 1) develop and test a rapid-cycle quality improvement (QI) intervention for cancer pain and symptoms in underserved Chinese Americans, and 2) identify cultural and psychological factors that may affect the uptake of the intervention. We are collaborating with 3 community-based oncology practices to implement a QI intervention that includes: pain screening, early identification and follow-up treatment for pain, provider education, and referral for specialist care. We are conducting 2-week longitudinal surveys to test the effectiveness of the QI intervention and identify barriers and facilitators to QI uptake and outcomes. To date, 25% of 948 patients report chronic pain; 92% report other "severely distressing" symptoms (15% sleep disturbance; 15% fatigue; 14% severe pain). Most (69% women; M age=56.2; SD=9.8) speak Cantonese only (86%) and 44% have annual incomes < $10,000. While many report high pain levels (M=7.8, SD=12.6), only 25% report receiving prescription pain medications, including opioids (15%) and non-opioids (12%). Further, 16% use complementary and alternative pain therapies, including Chinese herbal medicine and chiropractic. Levels of fatalistic pain beliefs are similar to Chinese samples abroad and pain stoicism levels are comparable to non-Chinese samples in the U.S. The primary outcome will be the proportion of patients who receive timely pain control over a 2-week period. The QI intervention may alleviate the high cancer symptom rate in this population and clarify specific cultural and other factors that are related to symptom control outcomes.

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C-144c

EMOTION REGULATION CORRELATES OF PAIN CATASTROPHIZING IN CHRONIC LOW BACK PAIN

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Pain catastrophizing (PC) is a reliable predictor of chronic pain and maladjustment. Although life stress and negative affect are known contributors to PC, the role played by emotion regulation is unknown. We examined how three emotion regulation constructs (alexithymia, ambivalence over emotional expression, and thought suppression) are related to PC, beyond the effects of depression and stressful life events. A sample of 149 adults with chronic low back pain (age M = 47.4; 60% female; 80% African American, 15% European American, 5% other) completed emotion regulation measures (Toronto Alexithymia Scale-20, Ambivalence of Emotional Expression Questionnaire, White Bear Suppression Inventory), the Pain Catastrophizing Scale, and control measures (Beck Depression Inventory-II, Life Stressor Checklist-Revised).

All three emotion regulation constructs were positively significantly ($p < .001$) related to PC (alexithymia: $r = .44$; ambivalence: $r = .46$; suppression: $r = .46$). Together, these three variables accounted for 30% of the variance in PC. As expected, depression ($r = .67$) and stressful life events ($r = .34$) also predicted PC, together accounting for 45% of PC variance. In regressions controlling for depression and life stress, alexithymia ($\beta = .17$, $p = .01$) and ambivalence ($\beta = .18$, $p = .01$) remained independently related to PC, although suppression became marginal ($\beta = .12$, $p = .10$). The three emotion regulation measures together now accounted for 3.5% of the variance ($p = .02$) beyond depression and stress; the five measures accounted for 48% of the variance in PC. Thus, emotion regulation measures contribute uniquely to PC, beyond life stress and depression, which are the strongest correlates. Findings suggest that improving patients' emotion regulation, including facilitating their emotional awareness and expression rather than suppression and inhibition, may help reduce PC, ultimately improving patients' pain and adjustment.

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C-144d

PAIN IN U.S. HOSPITALS: WHAT'S GOING ON?

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Purpose: Unrelieved pain is prevalent and harmful. The purpose of this translational research study was to disseminate and implement evidence-based approaches to measure and improve pain care and outcomes.

Design: The program is a unique partnership between the University of Utah and the National Database of Nursing Quality Indicators® (NDNQI)—a national consortium that collects and reports nursing quality indicators at the unit level. We collected patient-reported data regarding pain care and outcomes during a two week period in April 2011.

Sample/setting: NDNQI hospitals (n=326) obtained institutional approvals. Eligible units were medical and/or surgical, step down, rehab, critical access, and obstetrical; eligible patients were adults, in pain within the past 24 hours and who could speak and understand English. Altogether, 1611 units participated. Of 22,293 screened patients, 15,012 were eligible and 12,314 (82%) verbally consented to participate.

Methods: On a designated day, trained RNs collected patients' opinions on pain management via structured interview including 9 pain quality indicators. Data were entered into customized spreadsheets and submitted securely.

Findings: Participants were mostly female (59.4%); ages ranged from 19 to 90+ (median 59); 27.3% were non-white and 6.5% were Hispanic. The majority of patients were in medical/surgical settings. Pain on average over the past 24 hours was 6.2 (SD = 2.45) on a 0 to 10 scale. 28.5% of patients were in severe pain frequently or constantly. Only 54.4% had pain relief greater than 70%. The care quality indicators ranked lowest related to discussion of side effects of analgesics and use of non-pharmacologic approaches. These results confirm the ability to effectively disseminate pain quality indicators. Compared to previous studies, results indicate a high level of unrelieved pain in spite of national accreditation standards and clinical practice guidelines. New strategies are needed.

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C-144e

USING EYE-TRACKING TO EXAMINE PAIN ATTITUDES AND ATTENTION AMONG INDIVIDUALS WITH AND WITHOUT CHRONIC LOW BACK PAIN

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Pain-related fear and anxiety in those with chronic low back pain (CLBP) contribute to avoidance of physical activity and disability development. While maladaptive attentional processes are hypothesized to play a role in the pain, fear, and avoidance cycle, this is the first study to directly examine attentional processes using eye-tracking. Using a sample of 22 individuals with CLBP history and 54 healthy controls, pain anxiety and kinesiophobia (fear of movement during pain) were assessed using the Pain Anxiety Symptoms Scale (PASS) and the Tampa Scale for Kinesiophobia (TSK). Attention to pain-related stimuli was evaluated using a computerized infrared eye-tracking system to covertly monitor gaze patterns towards matched images of individuals experiencing pain (6 images) versus those engaging in neutral activity (no pain, 3 images). Matched image pairs were presented randomly in 72 combinations. In the CLBP group, greater pain anxiety was associated with more time spent looking at pain images relative to no pain images (p=.036), but among controls the opposite effect was found (p=.019). Additionally, controls with high kinesiophobia spent more time looking at pain images versus no pain images (p=.011), but high kinesiophobia CLBP participants looked equally long at these image types. These results indicate that pain anxiety may be particularly important in directing attention to pain-related stimuli, perhaps because pain anxiety taps into autonomic components of pain (e.g., feeling dizzy/sweaty) whereas kinesiophobia deals with controllable reactions to pain (e.g., escape from painful activity). Among those high in pain anxiety, the difference between the CLBP and control participants may indicate that attention dysregulation is present in those with chronic pain: unlike high anxiety controls, high anxiety CLBP participants may be unable to direct their attention away from anxiety-provoking stimuli. Future research with more images and a larger chronic pain sample is needed.

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C-144f

MODERATORS OF COPING SKILLS TRAINING FOR PATIENTS WITH RHEUMATOID ARTHRITIS

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Rheumatoid arthritis (RA) causes pain, disability, and inflammation. Pain coping skills training (CST) improves adjustment, but the effect size is small to moderate; research needs to identify patients most likely to benefit from CST. We conducted moderator analyses of data from a trial of CST on 264 adults with RA (81.1% female, age M = 55.1 years, 67.8% Caucasian, 28.0% African American). At baseline, we assessed potential moderators: alexithymia (Toronto Alexithymia Scale-20), social constraints (General Social Constraints), and personality (Big Five Inventory). Health assessed at baseline and 1, 4, and 12-month follow-ups included pain and physical functioning (Arthritis Impact Measurement Scales-2) and inflammation (C-reactive protein). Patients were randomized to CST or equivalent control (Arthritis Education; AE), and received 8, individual, weekly sessions.

Analyses examined correlations between potential moderators and residualized outcome scores in each group; we report associations that differed significantly (p<.05) between CST and AE. Greater alexithymic difficulty identifying feelings predicted reduced pain after CST (β=-.14) relative to AE (DIF: β=.15) and improved physical functioning after CST (β=-.04) relative to AE β=.20) at 4 months. Higher baseline social constraints predicted lower pain after CST (β=-.11) relative to AE (β=.14) at 1 month. Higher introversion predicted less inflammation after CST at 4 (β=.11) and 12 months (β=.14), relative to AE (β=-.19 and β=-.16, respectively). Finally, higher conscientiousness predicted less pain after CST (β=-.14) compared to AE (β=.13) at 1 month. These results suggest that certain personality and social traits predict the outcomes of CST for patients with RA. The focus on teaching skills to change cognitions and behaviors in a close therapy relationship may be particularly helpful for those patients who are unsure of their emotions or socially constrained or introverted. Conscientiousness may lead to greater participation and practice of skills.

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C-144g

PSYCHOMETRIC AND CLINICAL CHARACTERISTICS OF THE REVISED FRENCH-CANADIAN VERSION OF THE SCALE SATISFACTION OF ADOLESCENTS WITH POSTOPERATIVE PAIN MANAGEMENT - IDIOPATHIC SCOLIOSIS (SAP-S)

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Background: Scoliosis surgery generates moderate to severe pain, and postoperative pain management is often suboptimal. Review of the literature did not yield any relevant instrument on satisfaction of pain management for this group of patients. The SAP-S was developed for this purpose.

Objective: To present some of the psychometric and clinical characteristics of the Revised French-Canadian version of the SAP-S.

Methods: Following the results of a pilot study done on the initial version of the SAP-S, we performed an Exploratory Factor Analyses (EFA) and reviewed each item for factor loading and wording. Internal consistency was also verified. Narratives obtained through open-ended questions were summarized and analyzed.

Results: A return rate of 83% (74/89) was observed. A Cronbach's Alpha of 0.76 was obtained. SAP-S final version now includes 13 Likert-scale (1 to 6), 13 nominal and 4 open-ended questions. Best model fit from EFA was a 5-factor structure, with factor loadings over 0.3 for all the items. Mean level of satisfaction was moderate (X = 4,3/6,0 +1,1). Patients were satisfied with nurses' interventions but complained of poor pain management during transition from I/V to oral medication as well as regarding the lack of use, by nurses, of non-pharmacological interventions to relieve their pain.

Conclusions: Psychometric properties of the SAP-S are good. We believe that it is a useful tool to collect information on patients towards the improvement of nursing interventions in acute postoperative pain management, and thus contribute to the prevention of chronic pain which this group of patients is vulnerable.

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C-162a

AN INTERVENTION TO PROMOTE PHYSICAL ACTIVITY COUNSELING IN UNDERSERVED POPULATIONS: PATIENT REPORT OF 5AS DISCUSSIONS

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Purpose: To assess the effect of an intervention to promote clinician-patient communication about physical activity on patient reports of 5As discussions with their clinician.

Methods: Family medicine clinicians (n=13; nine physicians, two nurse practitioners, and two physician assistants) at two urban community health centers were randomized to early or delayed communication training. Training consisted of four one-hour training sessions designed to teach and reinforce the 5As (Ask, Advise, Agree, Assist, Arrange) for physical activity counseling. Patients (n=325) completed surveys at baseline, immediately post-intervention, and six months later. The outcome reported here is the Physical Activity Exit Interview (PAEI) total score, a reliable, validated 15-item measure asking patients whether they discussed each A with their clinician. The PAEI has five subscales, one for each A of the 5As.

Results: Patients' mean age was 43 years, and 75% were African American, 15% Hispanic, and 10% Caucasian. Most (58 %) had Medicaid insurance. Patients' mean BMI was 32.5; co-morbidities included hypertension (49%), chronic pain (44%), depression (32%), and diabetes (21%). Using a mixed model controlling for clinician as a random effect, the PAEI score increased from 6.8 to 8.4 (baseline to post-intervention, p=0.01). The Advise, Assist, and Arrange subscale scores increased significantly, whereas Ask and Assess did not.

Conclusions: A clinician-directed intervention increased discussions of the 5As for physical activity, by increasing Advise, Assist, and Arrange skills. Future work will examine patient physical activity outcomes among those enrolled in community physical activity programs.

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C-162b

THE SEMINAL PROGRAM REPORTING THAT OLDER ADULTS CAN BECOME STRONGER: A RETROSPECTIVE STUDY EXAMINING FALLS REDUCTION

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Older adults are at an increased risk for falls, which can result in moderate to severe injuries, impact daily function, and lead to chronic pain and disability. Various studies report a positive association in fitness interventions and fall prevention, reducing risk and frequency of falls in older adults. The purpose of this study was to examine the ability of an evidence-based fitness program to decrease falls among residents of an Atria Assisted Living facility. A descriptive cross-sectional study looking at period prevalence (1998-2009) retrospectively matched exercise charts available at the assisted living site for frequency and duration of strength and aerobic training with the number of reported incident falls from the assisted living database. Logistic regression models were used to examine the effect of the fitness program on falls reduction. Of the 66 older adults in the analysis, 21 (31.8%) reported a fall incident; of those, 52.4% reported less than five falls. 28.6% reported injuries; most common: abrasion (50.0%). Average participation time in the fitness program was 1.9 years (range=0-8 years). Compared with those with no reported fall incidents, those with a fall history reported less participation time in the fitness program (OR=.86 (.65, 1.13)). Older adults who reported greater than 10 minutes of aerobic training a week had a 30% reduced odds (OR=.68 (.37, 1.10)) of reporting a fall incident. Among those with a fall history, adults who attended fewer strength training sessions a week were 2 times more likely to report more than one fall incident (OR=2.14 (.45, 10.11)). The current study suggests participation in a fitness program, both aerobic and strength training, may decrease the number of fall incidents and prevent injury in older adults.

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C-162c

A REVIEW OF SEDENTARY BEHAVIOR INTERVENTIONS IN ADULTS

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Purpose: Compelling epidemiological evidence showing deleterious associations of sedentary behavior with health outcomes suggests sedentary behavior as a potential health behavior change target. To date, there has been no review of interventions to influence sedentary behavior in adults. This review addressed three questions: 1) How many behavior change interventions have reported sedentary behavior outcomes? 2) How frequently do interventions achieve reductions in sedentary behavior? 3) What sample, methodologic or intervention characteristics are common to interventions reporting successful reductions in sedentary behavior? Methods: A structured search of Scopus and Medline was conducted for articles published to December 2011. Included studies reported change in sedentary behavior following intervention in adults. A significant reduction in any indicator of sedentary behavior was deemed a successful intervention. Information on study design, intervention features and behavioral outcomes was extracted, and summarized. Results: Of the 24 studies included in this review, 2 targeted sedentary behavior exclusively, 4 targeted sedentary behavior in conjunction with physical activity, and 19 reported sedentary behavior outcomes following interventions to influence physical activity. Fifteen (62.5%) studies successfully reduced sedentary behavior (range 14-71 min/d). Characteristics common to successful interventions included those related to sample characteristics (targeting older adults, those overweight or obese, and those with chronic conditions), study methods (using device-based measures, and single group design), and intervention characteristics (targeting sedentary behavior directly, and shorter duration [<12 weeks]). Conclusions: This review suggests that interventions targeting sedentary behavior are rare but show promise. To advance the evidence, future intervention trials should use device-based measures, conduct controlled evaluations (with detailed reporting) of intervention strategies, and explore factors related to the maintenance of behavior change.

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C-162d

UNDERSTANDING THE BUILT ENVIRONMENTAL CORRELATES OF LEISURE TIME PHYSICAL ACTIVITY (PA) FOR ADULTS IN CURITIBA, BRAZIL

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Background: The prevalences of obesity and chronic diseases are rising in Brazil and Latin America. Physical inactivity is a risk factor for obesity and chronic diseases. The built environment (BE) correlates of PA are well defined in some developed nations, yet few studies have been published in Brazil. By understanding the BE correlates of PA, guidelines can be developed to promote physical and policy changes in communities, and their effectiveness upon behavior change may be assessed. Objectives:1.Identify potential BE predictors of leisure PA for adults (20 to 65 years) in Curitiba. 2.Construct statistical models to predict a) overall leisure physical activity (OPA), b) walking for leisure (W), c) moderate leisure physical activity (MPA) and d) vigorous leisure physical activity (VPA). Methods: A survey on PA and BE was applied to a representative sample of 1461 adults (20 to 65 years) in Curitiba in 2002. Pearson's correlations for each BE variable versus each PA outcome were computed with statistical significance of <0.05. Linear predictive statistical models were generated considering all variables with statistical significance for inclusion. Age, sex, and education level were included in all models as potential confounders. Results: The models attained R-Squared values ranging from 0.71 (OPA) to 0.29 (W). Models included variables in the domains of public spaces, aesthetics, mixed land use, and connectivity. Specific variables within each domain and the weight of each domain varied across models; eg. public spaces are a strong predictor for VPA, aesthetics for MPA, and mixed land use for W. Conclusions: This study generated a model explaining over 70% of the variability of OPA for adults in Curitiba, underlining the importance of BE factors for PA. Different BE variables predict leisure PA at varying intensities. Thus, PA intervention strategies with environmental approaches should take into account the varying relationships between the BE and different intensities and types of leisure PA.

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C-162e

AN UPDATE ON EXERCISE DEPENDENCE AS A MEDIATOR OF EXERCISE AND EATING DISORDERS: EXAMINATION OF PSYCHOLOGICAL VS PHYSIOLOGICAL FACTORS

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Excessive exercise is associated with the development and maintenance of eating disorders. However, exercise amount alone fails to explain why this relationship occurs. Previous research has identified exercise dependence as a mediator of this relationship, but has failed to separate psychological factors for exercise from physiological effects of increased amounts of exercise. The purpose of this study was to determine if psychological or physiological factors better explain the mediating effect of exercise dependence on eating disorders. Female college students [N = 408; M(SD) age = 19.76(1.11); BMI = 23.10(3.37)] completed self-report measures of exercise behavior [i.e., Leisure-time Exercise Questionnaire, M(SD)=33.45(20.96)], psychological and physiological criteria of exercise dependence [i.e., Exercise Dependence Scale, M(SD)=44.44(15.44)], and eating pathology status [i.e Drive for Thinness Scale, M(SD)=4.37(5.53)]. Mediation was assumed due to the temporal relationship and correlation of exercise behavior and exercise dependence. Mediation effects were found for three of the four psychological criteria of exercise dependence [e.g. continuance ($\beta = .12$, $p = .02$), reduction in other activities ($\beta = .20$, $p = .01$), and lack of control ($\beta = .16$, $p = .01$)] but no mediation effect was found for the three physiological criteria [e.g. time ($\beta = .10$, $p = .08$), tolerance ($\beta = .10$, $p = .17$), and withdrawal ($\beta = .06$, $p = .27$)]. These results support a growing body of previous research suggesting that exercise amount alone is insufficient in explaining the relationship among exercise and eating disorders. They extend the literature by suggesting that pathological psychological factors may best explain the exercise and eating disorder continuum relationship. These mediation effects indicate that interventions should be directed at changing psychological factors for exercise. Further research is recommended.

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C-162f

TRANSLATION OF A MATTER OF BALANCE VOLUNTEER LAY LEADER MODEL AMONG AN ASSISTED LIVING POPULATION

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One-third of older adults fall at least once each year. Fear of falling is reported in half of fallers which can lead to further decline in activity and eventual loss of independence. A Matter of Balance/Volunteer Lay Leader model (AMOB/VLL) is an evidence-based cognitive behavioral prevention program that has demonstrated success in increasing falls efficacy, falls management and physical activity levels. Using the RE-AIM model as a framework, the purpose of this study was to translate AMOB/VLL to two Atria assisted living communities. A single-arm intervention study was designed with 3 time points (baseline, 8 weeks and 6 months) to assess whether mean scores for fall-related and physical performance measures (timed chair stand, timed-up-and-go, grip and quadriceps strength and gait speed) improved after participants completed the AMOB/VLL intervention. Generalized linear models were used to examine the effect of the interventions immediately post-intervention (8 weeks) and 6 months. 47 residents volunteered for the study. Of these 41 were eligible - resulting in a reach of 87%. Two participants never attended making participation 95%. Of the 41 participants in the study, 76.9% were female, 75.0% reported high school education or greater, and mean age was 86.7 (±4.9). Average number of reported co-morbidities was 3.9 (±2.1). The 6-month change score for number of falls significantly decreased (-.10) and the Falls Management Scale significantly increased (1.0). Physical function significantly increased for chair stand count in 30 seconds (1.50) and for the Physical Component Score (1.1). Mean change scores suggest the AMOB/VLL intervention was effective in improving physical function and falls management among older adults in assisted living.

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C-162g

AN EXAMINATION OF SOCIAL SUPPORT FOR ACTIVE COMMUTING

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Obesity and rates of chronic disease have become a major cause for concern in the United States, both related to a lack of sufficient physical activity (PA). Active commuting (AC) to the workplace is a successful strategy for incorporating more PA into daily life and is associated with health benefits. Limited research exists of the effect of social support on AC, and is examined in this study. Methods: Participants in the study were a volunteer convenience sample of employed adults working outside the home. Participants responded to questions regarding: demographics, number of times per week, actively commuting (walking and biking), spouse AC patterns, spousal support for AC, coworker AC patterns, and coworker norms for AC. Basic descriptive and frequencies were used to describe the sample, Pearson bivariate correlations examined the relationship between AC and spouse and coworker variables. Using the significant variables, a multivariate regression analysis predicted the variance in AC.Results: The sample (n=1175) had a mean age of 43.5+11.4 years, is primarily White (92.7%), female (67.9%), highly educated (83.3% college graduate or higher), and high income (63% at 60K+). 20.3% of those surveyed report AC to work at least once per week by means of walking or biking. Number of times per week AC for spouse (p<0.001) and coworkers (p=0.006) were positively related to AC. Support for AC from spouse (p<0.001) and coworker norms (p<0.001) were also related. The multivariate regression model accounted for 39.3% of the variance in AC (F=93.30 df=4, p<0.001), with spouse AC (β=0.46, p<0.001), spouse support (β=0.10, p=0.02), coworker norms (β=0.16, p<0.001), and coworker AC (β=0.10, p=0.01) all as positive predictors. Conclusion: This study demonstrates that both spouse and coworkers have a significant influence on likeliness to actively commute to work. Future interventions targeting AC should consider the social environment in addition to individual and environmental influences that have been previously documented.

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C-162h

APPLICATION OF THE SOCIAL COGNITIVE THEORY TO PHYSICAL ACTIVITY AMONG OVERWEIGHT AFRICAN AMERICAN FEMALE COLLEGE STUDENTS

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Objective. African American (AA) women report low levels of physical activity (PA) compared to other groups. More research is needed to determine what factors influence PA performance in this population. The purpose of the current study was to examine the relationships between specific Social Cognitive Theory (SCT) constructs and PA levels among a sample of overweight AA college females. Methods. A cross sectional study design was employed with a sample of 34 overweight (BMI>25) AA college students enrolled in a web-based weight loss study. Bivariate linear regression analyses were conducted to examine how the SCT constructs of self-regulation, social support, outcome expectations, and enjoyment were associated with PA performance. Covariates of age and BMI were considered during model testing. Results. The sample had a mean age of 21.1 (SD=2.3) years and a BMI of 35.4 (SD=6.8). Participants reported performing a mean of 81.8 (SD=76.3) minutes/week of moderate-to-vigorous intensity PA, 60.8 (SD= 64.8) minutes/week of moderate intensity PA, and 20.1 (SD = 44.0) minutes/week of vigorous intensity PA (median=0; range 0 to 210). Regression analyses revealed that the model including social support from friends (β= -.351) and age (β=.318) significantly predicted moderate intensity PA (p=.016; R2=.1.84). No other SCT constructs emerged as significant predictors for any of the PA outcomes. The relationship between BMI and moderate-to-vigorous PA (β=-.336) reached marginal statistical significance (p=.052; R2=.085). Conclusions. Findings suggest that the SCT constructs of outcome expectations, self-regulation, social support from family, and enjoyment were not associated with performance of PA in a sample of young overweight AA females. Social support from friends had an unexpected inverse relationship with PA. Future studies with larger samples are needed to further explore the relationships between PA and SCT constructs in this understudied population.

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C-162i
EXPLORATORY FACTOR ANALYSIS OF MEASURES OF SELF-REGULATION FOR PHYSICAL ACTIVITY

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Physical activity (PA) has numerous health benefits, but despite the myriad of corresponding theories of PA, there is as of yet, no consensus as to what are the consistent and reliable mediators of PA. Several theories and emerging studies have identified self-regulation as a potential mediator of PA, however, the measurement of self-regulation and its theoretical underpinnings have been debated and contested. In order to address the psychometric ambiguity of self-regulation, the current study examined the factor structure of nine previously created measures of self-regulation in a sample of 750 college students. The sample was predominantly white (78.8%) and female (69.47%). Students were asked to complete an online survey where they completed each of the nine surveys for self-regulation (totaling 191 questions) and one survey of PA. Students completed the survey in one of 10 random orders to conform with a 10 X 10 Latin-Square design. Exploratory factor analysis with a maximum likelihood extraction and a GEOMIN rotation was used to determine how many factors to extract. Results indicate that a 17 factor solution provided the best fit (AIC = 95,4021; TLI = 0.911; RMSEA = 0.037; $\chi 2(15{,}034, N = 750) = 30{,}615.02, p<.001$). Potential explanations for the identification of so many factors include: 1) self-regulation is a multi-faceted construct that may not be comprehensively assessed with existing measures; that is, they do not all measure self-regulation as it is theoretically defined or 2) not all the factors that were extracted measure self-regulation but measure other closely related constructs such as self-efficacy, outcome expectancies, or social support. Several constructs and their corresponding questions are examined for face validity and compared to existing theoretical definitions of self-regulation for any overlap. Future studies should focus on confirming these results via confirmatory factor analysis and assessing the factor scores for predictive validity with PA.

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C-162j
APPEARANCE CONCERNS AND THE TRANSTHEORETICAL MODEL FOR PHYSICAL ACTIVITY

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The specific mechanistic pathways by which feelings of attractiveness (appearance evaluation) and extent of investment in appearance (appearance orientation) influence the physical activity behavior change process are unknown. Thus, this study aimed to (1) examine associations between appearance orientation/evaluation and transtheoretical model (TM) constructs (stage of change, barrier efficacy, temptation, decisional balance, processes of change) and (2) determine if appearance orientation/evaluation moderate the relationship between TM constructs and stage of change. Participants (N=1785) completed an online survey assessing appearance and TM constructs. A series of regression analyses were conducted, separated by stage of change. All analyses controlled for age, sex, race, education level, and body mass index and where applicable, controlled for the TM and appearance constructs. Few associations between appearance constructs and stage of change and few moderating relationships were found. Appearance evaluation was positively related to, and explained a significant amount of variance in, barriers efficacy (1-4%), and behavioral processes of change (4-7%). Appearance evaluation was negatively related to, and explained a significant amount of variance in, affect temptation (1-8%). Appearance orientation was positively related to, and explained a significant amount of variance in, pros (3-9%), experiential (11-13%) and behavioral (4-8%) processes of change. Because TM theorizes processes of change, barriers efficacy, pros and affect temptation drive stage movement, it is possible appearance concerns have multiple, simultaneous mechanistic pathways influencing physical activity behavior change. Future studies using prospective and randomized control methods are needed to further clarify mechanisms by which appearance concerns influence physical activity behavior change.

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C-162k
ENCOURAGING ACTION PLANNING FOR PHYSICAL ACTIVITY: A TRANSLATIONAL RESEARCH APPROACH

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Action planning (AP) is a theory-based strategy identified as a promising approach for improving self-regulation of physical activity. Promotional messages, a widely used tool for encouraging physical activity, sometimes suggest creating an AP. However, this messaging suggestion is rarely heeded by end users emphasizing the need for translational research examining strategies for enhancing uptake of AP. The purpose of our online study was to examine the effectiveness of a persuasive message encouraging AP for physical activity as a translational strategy. Inactive participants (n = 133, Mage=41.83±11.63 yrs) were randomly assigned to read either a message encouraging AP for activity or a generic physical activity message without AP. After reading their message, participants could develop a physical activity AP, then all completed measures of AP outcome expectancies and self-regulatory efficacy. Two independent raters evaluated AP quality assessing whether participants specified when, where, and how they planned to be active in the next week (kappa ≥ .70). There was a significant difference between groups in the quality of AP planning. ANOVA revealed that plan quality was superior in the AP message group than the generic message group, $F(1, 73) = 38.83, p < .001$. Also, AP message participants had stronger positive outcome expectancies for AP than their counterparts, $F(1, 121) = 3.84, p = .05$. However, the likelihood of developing an AP was not enhanced by reading the AP message, AP = 45.3% vs. Generic 54.7%, $\chi 2$ (1, n = 133) = 2.95, p = .09. Persuasive messages encouraging AP led to enhanced quality of participants' actual physical activity plans and increased their immediate expectations for the benefits of AP. The study findings underscore the need for additional translational messaging research to strengthen persuasion strategies to increase the likelihood of AP.

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C-162l

DEVELOPING EVIDENCE-BASED MESSAGES FOR TRANSLATING PHYSICAL ACTIVITY GUIDELINES INTO PRACTICE

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A substantial body of evidence examining strategies for changing health behaviour has accumulated yet there has been no attempt to systematically synthesize and apply this evidence to develop actionable guidelines for health promotion practice. In clinical practice, the Appraisal of Guidelines, Research, and Evaluation II (AGREE II) Instrument is the gold standard for guideline development but has not yet been applied to the creation of behavior change practice guidelines. We used an adapted version of the AGREE II to guide the development of recommendations for constructing behaviour change messages to supplement the new Canadian Physical Activity Guidelines (CPAG). We modified the AGREE II items to suit the objectives of developing messages that clarify key components of and motivate Canadians to meet the new CPAG. Over a two-day meeting, five workgroups (one for each CPAG and an overarching message group) of 4-6 experts (behavior change, messaging and exercise physiology researchers; key stakeholders) reviewed and discussed evidence for creating behaviour change messages. The resulting recommendations were summarized, reviewed by workgroup experts, pilot tested among end users, and finalized by the workgroup. The process led to the provision of behaviour change message recommendations and rationale, as well as sample messages. The AGREE II was a useful tool in guiding the development of these evidence-based recommendations and in identifying avenues for improving the process of translating behaviour change research into practical guidelines. To our knowledge, these are the first set of evidence-informed recommendations for constructing and disseminating messages supplementing physical activity guidelines. This project also represents the first application of international standards for guideline development to the creation of recommendations specifically aiming to inform behaviour change practice.

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C-167a

SOCIODEMOGRAPHIC AND PERSONAL HEALTH CHARACTERISTICS ASSOCIATED WITH INSUFFICIENT AND EXCESSIVE GESTATIONAL WEIGHT GAIN BASED ON THE REVISED INSTITUTE OF MEDICINE GUIDELINES

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Purpose: Both insufficient and excessive gestational weight gain contribute to elevated risk for pregnancy complications and negative birth outcomes. With the recent revision of the Institute of Medicine's (IOM) weight gain guidelines, it is important to identify those women who are most vulnerable to insufficient and excessive gestational weight gain. Methods: In the years 2004-2008, 8663 African American and Caucasian women (19% African American, mean age=26.1 years, 60% married, 40% with at least some college) in Arkansas gave birth to a single live infant and completed questions about gestational weight gain and their prepregnancy weight status as part of the Pregnancy Risk Assessment Monitoring System. Logistic regression was used to identify sociodemographic and personal health variables associated with the odds of gaining above or below the 2009 IOM guidelines. Results: Women who were normal weight or overweight prepregnancy and women with Medicaid at any point during their pregnancy had lower odds of gaining less than the IOM guidelines, while multiparous women had greater odds of gaining less than the IOM guideline. Women who identified as Caucasian, who were overweight or obese prepregnancy, and who were married had higher odds of exceeding the IOM guidelines, while those who had Medicaid at any point in their pregnancy, and who were multiparous were associated with lower odds of exceeding the IOM guidelines. Conclusion: These findings can inform gestational weight gain interventions, allowing them to be targeted to those at highest risk, separately for insufficient and excessive gestational weight gain; such targeting could lead to improving the health of mothers and children.

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C-172a

EFFECTS OF ANXIETY ON AVOIDANT COPING BEHAVIORS

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The purpose of this study was to determine if there was a relationship between anxiety and depression, and avoidant coping behaviors in older adults. We analyzed cross-sectional data from a larger, longitudinal study with older adults. Participants (N = 267, mean age=72 years) living in a retirement community in a northeastern state were interviewed. The results partially supported the hypothesis that participants with higher levels of episode-linked depression (ELD) and episode-linked anxiety (ELA) would be more likely to indicate that they failed to take action due to avoidant behaviors, a composite variable of five behaviors: (1) the belief that doctors cannot help, (2) that their condition is not serious enough, (3) that their condition will go away on its own, (4) that they do not like doctors, and (5) that they have had the condition before. Results showed participants with higher levels of ELA were more likely to indicate that they failed to seek medical care due to avoidant behaviors. Anxiety was a significant predictor of the number of avoidant behaviors, B = .46, t (83) = 1.99, p = .050, sr2 = 0.04. ELD, however, was not a significant predictor of the number of avoidant behaviors participants employed, B = -.11, t (83) = -.48, p = .635, sr2 = 0.00. Individual analysis of each coping behavior showed that ELA predicted participants beliefs about doctors inability to help them, B = .89, p = .059, participants with ELA were 2.5 times more likely to believe that doctors could not help them. ELD was not a significant predictor of beliefs about doctors. ELA nor ELD were significant predictors of beliefs that the participants' condition was not serious enough, it would go away on its own, they had it before and knew what to do, or they did not like going to the doctors. It is important that researchers further examine avoidant coping to determine if anxiety or depression are linked to specific emotional, social or economical reasons for failing to seek medical care.

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C-172b

DO AS I SAY, NOT AS I DO: PARENTS' MONITORING STRATEGIES AND ATTITUDES BY ADOLESCENT AGE AND GENDER

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Adequate parental knowledge of their adolescents' activities, friends, and whereabouts is a preventive measure against adolescent risk behaviors. Parents use multiple strategies at different moments that could be easily influenced by the parents' attitudes. There is a critical need to identify common attitudes and the monitoring strategies used among parents and adolescents based on adolescent gender and age. A rural sample of 528 parent-adolescent (12-17 years) dyads was used in this study. Parent monitoring attitudes were assessed using a 43-item, 4-point Likert survey where 1 = "strongly agree" and 4 = "strongly disagree. Parent monitoring strategies were assessed using the Parental Monitoring Instrument (PMI). Parents responses on the PMI ranged from 0 times to 5+ times on a 4-point Likert scale. Parent-adolescent dyads were separated into groups by age (12-14 and 15-17) and gender.

The majority of adolescents (70%, n = 363) in this sample were female; mean age of the was 14.8 years (SD = 1.3). The majority of parents were female (91%, n = 473) and married (66%, n = 342). The average age of participating parents was 41.3 years (SD = 6.78). Parents were more likely to feel that monitoring was necessary to protect younger (p<.001) and female (p<.001) adolescents. They were also more likely to speak to them more often about activities and peers than parents of older adolescents (p<.01) and males (p<.001). Parent monitoring strategies differed by adolescent gender (p<.01) but not age. Parents of daughters would incorporate more direct communication (p<.01) but would ask their daughters' friends or look in journals more than parents of sons. Parents who varied their strategies differed in their attitudes of parents who used consistent means of monitoring by their level of trust for their adolescent, any previous risk events, and attitudes that monitoring may not work.

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C-176a

INFLUENCE OF HEALTH BELIEFS ON SEXUAL ORIENTATION DISPARITIES IN PAP SMEAR USE

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BACKGROUND: Reproductive health screenings, such as Pap smears, support physical and psychological wellness throughout the life course. However, lesbian adolescent and young adult females underutilize Pap smears, and the reason for this underutilization is not known.

PURPOSE: To examine if health beliefs about Pap smears and cervical cancer partially mediate sexual orientation group disparities in Pap smear intention and utilization.

METHODS: We examined associations between sexual orientation and Pap smear intention and utilization using prospective data gathered in 2005 and 2007 from 3,822 females aged 17-25 in the Growing Up Today Study cohort. Multivariable regression models controlled for demographics, sexual history, and health beliefs about Pap smears and cervical cancer using a scale developed and validated based on the Health Belief Model. The mediation proportion was estimated for health beliefs.

RESULTS: Health beliefs mediated the effect of sexual orientation by 21% on Pap smear intention and by 16% on Pap smear utilization in lesbians after accounting for demographics and sexual history, but disparities persisted.

CONCLUSIONS: The contribution of health beliefs is important but does not fully explain disparities in Pap smear use. Public health practitioners should work to reduce barriers and increase perceived benefits of Pap smears, especially for lesbians.

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C-176b

WHAT'S IN A PURSE?: A PILOT STUDY OF COLLEGE STUDENT PERCEPTIONS OF WOMEN WHO CARRY CONDOMS IN THEIR PURSE

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Latex condoms can reduce the risk of some sexually transmitted infections (STIs; Centers for Disease Control and Prevention, 2011), however, few college students consistently use condoms (The American College Health Association, 2009). Responsibility for providing condoms typically falls to the male sex partner (Ross & Bowen, 2010). Expectations that men provide condoms may be the result of negative perceptions of women who carry condoms (Frankel & Curtis, 2008). In this study, we examined college students' perceptions of a hypothetical woman by having participants examine the contents of a purse and then complete a questionnaire. Sixty-nine (52.9% female) undergraduate students participated. Participants were predominately Caucasian (92.6%), single (63.2%), and had a mean age of 19.98. Participants were randomly assigned to one of three groups; varied by the number of condoms found in the purse (0, 1, or 3). Participants' perceptions about how sexually experienced the purse owner was ($F[2, 68] = 10.28$, $p < 0.001$, $\eta2 = 0.24$), how often she became intoxicated ($F[2, 68] = 4.63$, $p < 0.05$, $\eta2 = 0.13$), and likelihood that she had "one night stands" ($F[2, 68] = 12.34$, $p < .001$, $\eta2 = 0.21$) were significantly different depending on the number of condoms in the purse. Post-hoc analyses indicated that participants in the one- and three- condom conditions were significantly more likely than participants in the zero-condom condition to perceive the purse owner as more sexually experienced and more likely to have "one night stands." Participants in the three-condom condition were significantly more likely than those in the zero-condom condition to perceive the woman as more likely to become intoxicated. Results of this study suggest that college students perceive women who are prepared to take responsibility for their sexual health as more promiscuous. These negative perceptions may be a barrier to carrying condoms among female college students.

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C-180a

STRESS AND SLEEP PROBLEMS IN COLLEGE STUDENTS: THE ROLE OF SPIRITUAL WELL-BEING

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Previous research has shown that perceived stress is positively related to sleep problems, but the mechanisms underlying this relationship are unclear. One potential buffer might be spiritual well-being as it has been shown to be negatively related to sleep problems and perceived stress. However, no studies to date have tested whether spiritual well-being mediates the relationship. The purpose of this study was to examine whether spiritual well-being mediates the relationship between perceived stress and sleep problems. It was hypothesized that spiritual well-being (meaning and peace and faith) would significantly mediate the relationship. College students ($N = 700$; 66% female; 85% Caucasian) from three institutions both private and public, varying in geographic location and religious affiliation, completed surveys of demographics, perceived stress, spiritual well-being (meaning and peace and faith) and sleep problems (minutes to fall asleep and minutes of sleep lost at night). The hypothesis was tested in four regression mediation models. After controlling for relevant demographics (gender, ethnicity, income, religious affiliation, and self-rating of spirituality), perceived stress was positively related to minutes to fall asleep, $\beta = .21$, $p < .0001$, and minutes of sleep lost at night, $\beta = .21$, $p < .0001$, and negatively related to faith, $\beta = -.10$, $p < .0001$, and meaning and peace, $\beta = -.48$, $p < .0001$. Meaning and peace was negatively related to sleep problems; $\beta s > -.10$, $ps < .02$; whereas faith was not related to sleep problems. Meaning and peace was a significant partial mediator of the relationship between perceived stress and sleep problems, Sobel's tests > 2.21, $ps < .03$. This suggests that the relationship between perceived stress and sleep problems is partially accounted for by meaning and peace, but not a sense of faith. Meaning and peace may be a stress buffer that allows individuals to get more sleep while under stress. More research is needed to clarify this relationship.

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C-192a

TRADITIONAL TOBACCO USE AMONG CA AMERICAN INDIAN YOUTH: AN UNEXPECTED RISK FACTOR FOR CIGARETTE SMOKING

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American Indian (AI) youth have a higher smoking prevalence than any other ethnic or racial group in the U.S. Previous researchers have speculated that knowledge and use of ceremonial tobacco use would be protective against commercial tobacco use; however, this has not yet been tested empirically. This study examines the associations of knowledge and use of natural tobacco (home-grown or wild) and/ or commercial tobacco (store bought) for ceremonial prayer/traditional reasons with smoking behavior (past-month or lifetime). We also examined whether these associations differed across gender or between urban and reservation youth. Methods: Cross-sectional data from 996 AI youth throughout California were collected with a 40-minute paper and pencil culturally-specific tobacco survey. Youth 13-19 years of age were recruited from 48 different tribal youth organizations and cultural events in rural and urban areas of northern and southern CA. Logistic regression was used for the analysis. Results: AI youth were more likely to report lifetime and past-month smoking if they had used commercial tobacco for ceremonial/traditional reasons, natural tobacco for ceremonial/traditional reasons, or both (natural & commercial tobacco). There was a significant interaction with knowledge of ceremonial use of tobacco x gender on lifetime and past-month smoking. Additionally, the interaction of commercial tobacco use for ceremonial/traditional reasons x gender on lifetime smoking was significant. Conclusions: Contrary to expectations, the use of any type of tobacco (natural, commercial, or both) for ceremonial/traditional reasons was a risk factor for recreational smoking among AI youth. Traditional tobacco messages to respect and preserve the use of sacred tobacco must be carefully executed so that AI youth understand the distinction between traditional and recreational use of tobacco, especially among boys who typically have a larger role in the sacred use of tobacco.

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C-192b

PREDICTORS OF COMPLIANCE WITH ECOLOGICAL MOMENTARY ASSESSMENTS AMONG ADOLESCENT SMOKERS

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Ecological momentary assessments (EMA) are increasingly used to examine health behaviors in context. Little is known, though, about factors that predict compliance with EMA prompts, especially among adolescents. This study investigated predictors of compliance to random prompts at baseline among 461 9th and 10th graders (55.1% female; 70.5% white) participating in a longitudinal investigation of smoking. All participants had reported ever smoking. Following training, participants carried handheld computers for 7 days, with the devices randomly prompting them, on average, 5-7 times per day. Handheld computers included both device suspend and prompt delay features to facilitate compliance. We investigated the relationship between demographics, smoking level, family factors, student GPA, psychological symptoms, and alcohol related problems and level of compliance with random prompts. Participants were prompted a mean of 46.2 times while carrying the device, with overall compliance rates of 68%. Bivariate analyses indicated that higher levels of GPA, and lower levels of cigarette smoking, antisocial behavior, and alcohol problems were significantly associated with compliance. In multivariate regressions, baseline levels of smoking, gender, mother's education, GPA, and level of alcohol problems all significantly predicted compliance, such that lower levels of mother's education, alcohol problems and baseline smoking, and higher GPA predicted higher compliance. Additionally, being male predicted lower compliance. Symptoms of anxiety and depression, antisocial behavior, number of siblings in household, being in a two parent household, father's education, and race were not significant in the final multivariate model. These findings help to identify individuals who may have difficulty in complying with EMA.

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C-192c

HASSLES, STRESS, AND CHAOS IN MEDICALLY UNDERSERVED PRIMARY CARE PATIENTS WHO SMOKE

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In primary care, few interventions connect low socio-economic status smokers to smoking cessation treatments. Quitting smoking is less frequent in this population, with little data to indicate why. One hypothesis is that potentially high levels of chronic stress in this population interferes with smoking cessation. The purpose of this study is to describe the baseline levels of stress, daily hassles, and chaos reported by participants enrolled in a pilot randomized trial at a large urban safety net hospital that aims to test the feasibility of patient navigation to link patients to smoking cessation treatment. Measurements included the 4-item Perceived Stress Scale (e.g., "how often have you felt things were going your way?"; range: 0-16), the 9-item Abbreviated Hassles Index (e.g., "being out of work for a month or longer?; range: 0-9), and a 6-item Chaos Scale (e.g., "my life is unstable"; range: 6-30); for all measures, higher numbers equal higher levels of the reported variable. Participants (n=23) had a mean age of 47 years, half were women, half completed a high school education or less, and the majority (n=14) were from racial/ethnic minority groups, the most frequent being non-Hispanic black. Participants reported smoking a mean of 13 cigarettes per day. The average stress rating was 6.5 (SD=3.4), mean number of daily hassles was 3.9 (SD=2.4), and average chaos rating was 17.3 (SD=5.3). These baseline descriptive results indicate that in this population of medically underserved smokers, levels of stress, daily hassles, and lifestyle chaos were high. For example, the mean number of daily hassles is higher than those reported in a previous study of urban African Americans trying to quit smoking reported in the literature. Further study is needed to determine how these aspects of personal and social context (stress, hassles, and chaos) should be incorporated into the design, content, and delivery of patient navigation and counseling to effectively bring about smoking cessation in medical settings.

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C-192e

A WEB-BASED SIMULATION GAME TO INCREASE TOBACCO ABSTINENCE SELF-EFFICACY: FORMATIVE EVALUATION RESULTS

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Introduction: Smoking relapse remains a significant public health concern with high costs in quality-adjusted life years. Behavioral rehearsal can help smokers master coping skills to manage smoking urges. We report formative evaluation data from a prototype simulation game to help smokers rehearse strategies and improve self-efficacy for managing smoking triggers. Methods: Using a 'verbal protocol' approach, we presented a web-based prototype game scenario ("after dinner") to N=20 former/current smokers and N=5 tobacco cessation experts. Structured probes were used to gather feedback on usability, content, and design, and coders identified themes from transcripts. Results: Participants ranged in age (31-74, M=56), and 35% identified as Black, 5% as Latino and 60% as White. The majority (80%) had no experience using video games. Smokers rated the game as highly usable on the System Usability Scale (M=67). Most (80%) would use the skills learned and 90% would recommend the game to others. Six themes emerged from user transcripts: 1) the interface was easy to use; 2) users strongly identified with the trigger situations; 3) game play effectively demonstrated coping skills; 4) more diverse characters and situations are needed; 5) game pace could be faster; 6) users liked the game concept and believed it would be helpful. Expert feedback identified four themes: 1) need for an orientation to the game concept; 2) explicit instructions to aid usability; 3) choices of character selection to enhance relevance 4) increase engagement by greater reinforcement for game decisions. These results are being integrated into a full game with multiple cue scenarios. Implications: Formative evaluation data are essential to inform the design of interactive behavioral interventions prior to full-scale development and testing in a RCT, as planned. This cessation game has potential for high impact if found efficacious and is disseminated via the internet.

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C-202a

SLEEP QUALITY MODERATES ASSOCIATIONS BETWEEN CHRONIC CAREGIVING STRESS AND BIOMARKERS OF IMMUNE ACTIVATION

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Chronic psychological stress is a leading biobehavioral risk factor for several age-related illnesses, a relationship partially attributable to alterations in immune functioning. To date, the pathways through which chronic stress influences immune activity remain unclear; however, sleep may serve as a novel behavioral mechanism. The aim of the current study was to investigate associations of global sleep quality, measured using the Pittsburgh Sleep Quality Index (PSQI), with several measures of immune activation (interleukin [IL]-6, tumor necrosis factor [TNF]-α, and interferon [IFN]-γ) in a sample of chronically stressed postmenopausal female caregivers (n=22; age: 61.2 (6.1)) and low stress female controls (n=26; age: 62.0 (6.4)). Chronically stressed caregivers reported poorer global sleep quality and were more likely to be categorized as a poor sleeper (PSQI ≥ 5) as compared to controls. There were no significant differences in circulating levels of cytokines between caregivers and controls or sleep quality status (being a good vs. poor sleeper); however, analyses revealed a significant interaction between caregiver status and sleep quality status such that only caregivers who were also poor sleepers displayed elevated circulating levels of TNF-α (F (1, 44)= 4.96, $p<.05$). This remained significant after adjustment for age, body mass index, anti-depressant use, and depressive symptoms (F (1, 33)=4.16, $p<.05$). A similar association emerged for circulating levels of IFN-γ (F (1, 32)=4.28, $p<.05$) but not IL-6. Together these findings provide preliminary evidence that sleep quality may represent an important pathway through which chronic psychological stress modulates immune activity and potentially contributes to stress-related illness.

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C-202b

THE EFFECT OF MEDITATION ON CORTISOL: A COMPARISON OF MEDITATION TECHNIQUES TO A CONTROL GROUP

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Although there are inherently different types of meditation used to manage stress, there are relatively few studies comparing the effects of various types of meditation on cortisol levels. Examining how different techniques affect the mind and body will lead to more effective interventions and a better understanding of the mechanisms linking meditation to an increased sense of well-being. In the current study, two different meditation techniques were compared to an active control group to determine if there were differences in cortisol levels within training sessions and across 4 weeks of meditation training. Participants were randomly assigned to one of three groups: 1) Integrative Restoration Yoga Nidra (YN), 2) Focused Attention Relaxation Response Meditation (RR), and 3) an audio book control (AB). Each group met once per week for four weeks in a dimly-lit, large multi-purpose room. Participants provided saliva samples immediately before and after their respective task. During the 30 minute task, participants in each of the meditation groups were guided through a meditation script by a trained meditation instructor, whereas the control condition listened to an audio book that was played by a research assistant. All participants listened to instructions/story for 30 minutes in the same environment with the only difference between the groups being the content of the information conveyed. In order to test for differences in cortisol between the 3 groups, a 2 (Time: pre task vs. post task) x 2 (Session: Session 1 vs. Session 4) x 3 (Group: YN, RR, AB) repeated measures ANOVA was performed. Results of the analysis revealed a significant 2-way interaction between Time and Session ($p = .038$). Post hoc analyses revealed that while there were no differences between groups at Session 1, at Session 4 YN had significantly lower cortisol levels than AB for both pre task ($p = .038$) and post task ($p = .027$); there were no differences in cortisol levels between YN and RR or between RR and AB. Overall, the findings suggest that Yoga Nidra leads to lower cortisol levels compared to levels found in control subjects.

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C-207a

ALTERED BRAIN HIGH ENERGY PHOSPHATE LEVELS IN METHAMPHETAMINE DEPENDENT WOMEN

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Aims: Methamphetamine (MA) use is strongly associated with neurotoxic effects on the human brain. While there are several published reports that MA alters brain metabolite levels assessed using proton magnetic resonance spectroscopy (1H-MRS), it is unclear how MA affects high-energy phosphate metabolism in the brain, which can be measured using phosphorus (31P) MRS. This study utilized 2 dimensional (2D) chemical shift imaging (CSI) to compare in vivo phosphocreatine (PCr) levels between a sample of healthy controls (HC) and MA-dependent individuals. In addition, gender differences in MA-dependent subjects were explored.

Methods: Phosphorus spectra were acquired in 26 MA (age=33+6.5, 12 female) and 5 HC (age=34+7.5, 2 female) subjects. Imaging was completed on a Siemens 3 Tesla scanner using 2D CSI free induction decay pulse sequence with TR/TE=3000/2.3ms. Whole brain spectroscopy was quantified using AMARES. PCr levels are reported as a metabolite ratio to beta nucleoside triphosphate (β-NTP).

Results: The MA subjects showed a significant reduction in PCr/β-NTP ratio compared to HC by 9.3% ($p=0.02$). Post-hoc analysis revealed that female MA users had significantly lower (7.5%) PCr/β-NTP ratios than male MA users ($p=0.03$), adjusting for the total amount of MA use.

Conclusion: These preliminary data are consistent with compromised high energy phosphate metabolism in MA dependent individuals, since PCr serves as a buffer to maintain constant adenosine triphosphate levels. The gender difference in PCr levels may be relevant to the higher rates of depression in female MA users. Lower PCr levels in female MA users might be related to the higher incidence of depression, and this pattern of metabolic change has also been associated with worse outcomes in response to antidepressant treatment (Iosifescu, 2008). Further research is necessary to explore the relationship between altered phosphorus metabolism and psychiatric symptoms.

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C-207b

DEVELOPING A CODING SCALE TO MEASURE HEALTH PROFESSIONALS' BRIEF INTERVENTION SKILLS

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OBJECTIVES: This study created and evaluated a coding system to assess health professionals' skill in conducting screening and brief intervention (SBI) with patients who exhibit risky use of substances. Although reliable and valid Motivation Interviewing (MI) scales have been developed, they seem too complicated and demanding to adequately evaluate the brief MI-informed SBI of health professionals.

METHOD: Scale development was based on competencies outlined in the MD3 SBI resident training program with input from leading MI coding developers. The coding system includes 14 SBI-Adherent behaviors (coded 0, 1, or 2, based on quality and frequency of the behavior), 7 SBI Non-Adherent behaviors (based on a count of the behavior), and 2 global ratings, Collaboration and Empathy, adapted from the MITI 3.1.1. Two coders involved in scale development and two naive trained coders each coded audio recordings of residents conducting SBI with a standardized patient, and ICCs were analyzed.

RESULTS: Reliability among coders was high for original coders with ICCs ranging from .87 for Non-Adherent Behaviors to .88 for Global Ratings, .93 for All Behaviors, and .96 for Total Points. Reliability was also high (above .85) for the naive coders for all items except for the Non-Adherent Behaviors, which was unacceptable (-.36). ICCs were averaged across all raters for overall reliability and ranged from .26 for Non-Adherent Behaviors, due to the low reliability of the trained coders, to above .87 for all other items.

CONCLUSIONS: Preliminary reliability analyses suggest that a new SBI coding scale has solid psychometric properties to reliably capture health professionals' skill in conducting SBI and provide valuable feedback for training. More extensive training is needed, however, to effectively capture Non-Adherent Behaviors. Currently, a second reliability study is being conducted with two new coders who are receiving more rigorous training.

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C-207c

INTERACTIVE VOICE RESPONSE (IVR): LESSONS LEARNED FROM AN APPALACHIAN SUBSTANCE ABUSE POPULATION

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Participants & Procedures: Participants (N=92) were recruited through substance abuse meetings for a study examining IVR as a self-monitoring intervention in a sample of substance abusers in Appalachian Ohio. Participants completed self-report surveys assessing substance use, sexual behaviors, and symptoms of depression and anxiety at baseline and 6 week follow-up, in addition to an IVR satisfaction survey. Participants were randomly assigned to either a no self-monitoring control group or a daily self-monitoring IVR group. On each call, the IVR group responded to prompts related to their substance use, mood, and risky sexual behavior from the previous day.

Results:Despite compensation, reminder calls when a call was missed, and previous studies citing moderate to high rates of adherence, adherence to the IVR protocol was very low (17.8%). Of the 42 calls required, 38% of participants did not call and 80% of participants made less than 1/3rd of the daily calls. Results from the IVR Satisfaction Survey revealed that the majority of participants (54.5%) found calling the IVR system daily "a little bit" inconvenient. A 2x2 repeated measures MANOVA found a significant main effect for Time, $F(5, 86) = 5.8$; $p<.001$, but no main effect for Condition or the Time x Condition interaction.

Implications:Findings suggest that the current IVR protocol is not feasible with a sample of Appalachian substance users. Issues included disconnected phone numbers and relocated participants. In addition, high number of court-referred participants, low rate of initial substance use, and motivation to change may have contributed. The self-reported willingness of most participants to use the IVR system for an additional 3 months despite low adherence is consistent with research suggesting that Appalachian individuals prefer to appear cooperative with health providers, despite behavior to the contrary.This study is the first to explore IVR as a self-monitoring intervention with a clinical sample of substance users and may encourage caution in the use of this technology with some clinical populations.

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C-207d

THE EFFECTS OF ALCOHOL USE ON UTILIZATION OF MENTAL AND PHYSICAL HEALTH SERVICES

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The goal of this study is to examine the utilization of men tal and physical health services among alcohol users. The purpose of this study is to understand if alcohol use affects an individual's desire to seek help from available services for concerns which may or may not be related to alcohol use. Data were gathered from an anonymous online health survey which collects information on demographic depression, smoking, alcohol, and service utilization. The sample is comprised of 599 mostly English speaking (81.6%), non-Latino (57.8%) participants from 55 countries. The mean age was 40 years (SD = 16.5), 68.6% were female, 29.7 % were single and 40.1% married. Participants' score on the CAGE ranged from 0 - 4 points with a majority (52.3%) of participants indicating a score of 0; 18% had a score of 1, 14.5% had a score of 2, 10% had a score of 3 and 4.2% had a score of 4. Although 92.5% of participants reported that they had not used the internet to search for information on alcohol use, 27.2% of participants said they would use online interventions to help reduce their alcohol use behaviors. An examination of the relationship between the CAGE and utilization of health services did not reveal a significant relationship. However, a significant positive relationship was found between the CAGE score and amount of visits to mental health providers (r=.107, p= .013) as well as visits to the participant's doctor or primary care provider who participants' discussed personal or emotional problems with, including substance abuse (r=.169, p=.002). These preliminary findings suggest that the Internet can be a useful tool to gather substance use and service utilization data from individuals who may be suffering from mental health issues and who may also not actively seek out traditional face-to-face services.

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Rapid Communications Poster Session D

Saturday, April 14, 2012
8:30 AM - 10:00 AM

D-034a

WHO IS MORE LIKELY TO RECEIVE MENTAL HEALTH SERVICES (MHS) AFTER HEMATOPOIETIC CELL TRANSPLANTATION (HCT)?

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Documented psychological distress experienced by HCT survivors has led the Joint EBMT/CIBMTR/ASBMT to call for “a high level of vigilance for psychological symptoms” (2006). However, little is known about what influences survivors to obtain needed treatment for these symptoms. Thus, this study aimed to investigate predictors of MHS utilization via a secondary, exploratory analysis of our cross-sectional, nation-wide, internet survey dataset. Participants (n = 338) were predominantly middle aged (m = 52.5 years), female (58.2%), well-educated (m = 16 years), and allogeneic (60.2%) graft recipients, a mean of 5.7 years post-HCT. When surveyed, 18.6% met criteria for depression. Pre-HCT depression was reported by 10.4%, anxiety by 19.8%. Forty percent reported receipt of post-HCT MHS from one or more of the following providers: psychiatrist, psychologist, social worker, chaplain, marriage-family/couples counselor, and phone support. Factors evidencing statistically significant bivariate relationships with post-transplant MHS utilization were selected for entry in the regression model, including: gender, time since transplant, anxiety disorder before, social support, social constraint, and attitudes to help-seeking. A logistic regression analysis indicated MHS utilization post-HCT was significantly more likely with increased time since HCT (OR = 1.6, 95% CI [1.25, 1.98]) and higher social constraint at time of survey (OR = 1.05, 95% CI [1.01, 1.09]), with a positive trend among those with more favorable attitudes toward help-seeking. MHS utilization post-HCT was less likely among those with pre- HCT MHS utilization (OR = .10, 95% CI [.06, .18]). Taken together, these findings suggest that pre-HCT MHS may facilitate development of necessary coping skills, decreasing the need for post-HCT MHS. Results furthermore underscore the importance of screening for social constraint to identify those most in need of MHS, increasing outreach, and decreasing stigmatization of help-seeking.

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D-034b

ABOUT MY MOTHER’S ILLNESS: PSYCHOMETRIC PROPERTIES OF A STANDARDIZED, SELF-REPORT MEASURE OF CHILDREN’S CANCER-RELATED CONCERNS

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Substantial research has shown that parental cancer can significantly impact the functioning of children. However, until now, there has been no standardized measure of the concerns that a child attributes to the parent’s cancer. This study has three aims: to describe the 1) development and 2) psychometric properties of the scale called About My Mother’s Illness (AMMI), a child-report, standardized measure of cancer-related illness concerns school-age children (ages 8-12) explicitly attribute to their mother’s cancer; and 3) to examine the relationship between child and maternal anxiety and the child’s attributed cancer concerns. Data were collected from 177 children of women with breast cancer enrolled in a large, randomized-control trial. Mothers and their children were administered questionnaires to measure anxiety and depression; children were also administered a measure of illness concerns. Items that were rated by at least 20% of the children as being concerning either “most” or “all” of the time were included in the AMMI; 51 items met the criteria (α=.969). There were significant effects for age (p<.05) and gender (p<.05) for several individual items on the AMMI; younger children and females endorsed concerns on several items more frequently than older children and males, respectively. Scores on the AMMI were not associated with measures of child anxiety (p=.205) or depression (p=.861), or with maternal anxiety (p=.659) or depression (p=.671). Though few children scored at clinically elevated levels of anxiety and depression, most endorsed several illness-related concerns about their mother’s health. These results suggest that the AMMI captures a relevant aspect of the child’s experience with parental cancer that is not fully assessed by traditional measures of psychological distress. The AMMI also holds promise and clinical utility in documenting child-reported concerns that can help providers and scientists develop supportive and educational programs for children of cancer patients.

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D-034c

THE INFLUENCE OF HEALTH LITERACY ON COMPREHENSION OF A COLONOSCOPY PREPARATION INFORMATION LEAFLET AMONG OLDER AMERICAN ADULTS

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Successful bowel preparation is important for safe, efficacious and cost-effective colonoscopy procedures, however poor preparation is common. We sought to demonstrate an association between health literacy and comprehension of typical written instructions on how to prepare for a colonoscopy to enable more targeted interventions in this area. In this cross-sectional observational study, 764 participants aged 65 years and over were recruited from primary care clinics and federally qualified health centers in Chicago, Illinois. Participants were presented with an information leaflet outlining the bowel preparatory instructions for colonoscopy and then answered five questions assessing comprehension of the instructions in an ‘open book’ test. Health literacy (as measured by the Test of Functional Health Literacy in Adults) and socio-demographic measures were completed. Adequate health literacy scores were recorded for 71.9% of participants. Comprehension scores on the bowel preparation items were low. The mean number of items correctly answered was 3.2 (SD, 1.2) out of a possible 5. Comprehensions scores overall and for each individual item differed significantly by health literacy level (all p<.001). After controlling for gender, age, race, socio-economic status and previous colonoscopy experience in a multivariable model, health literacy was a significant predictor of comprehension (inadequate vs. adequate: β = -0.2, p < .001; marginal vs. adequate: β = -0.2, p < .001). Comprehension of a written colonoscopy preparation leaflet was generally low and significantly more so among people with low health literacy. Poor comprehension of preparatory instructions has implications for patient safety and future interventions should aim to improve comprehension by reducing literacy-related barriers.

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D-034d

PHYSICAL ACTIVITY IMPACTS FUNCTION AND FALLS IN OLDER CANCER SURVIVORS

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Aging is a significant risk factor for developing cancer, and the majority of cancers are diagnosed in older adults. Survival rates, however, are improving and a greater number of older adults are currently living with cancer. As people age, physical activity becomes increasingly important for the prevention of functional decline, falls, and chronic disease, but little is known about the role of physical activity in the older cancer survivor. The objective of this study was to examine factors associated with physical activity, function, falls and fear of falling in older cancer survivors. Baseline data was available for 102 patients attending a Geriatric Oncology clinic. Patients reported number of falls in the past 6 months, fear of falling, how often they think about falling, and current physical activity. The Short Physical Performance Battery (SPPB) was used to assess physical function. BMI, prescription medications and comorbidities were reported by the physician. Patients (M age = 82 yrs) were mostly female (76%), overweight (M BMI = 27), and reported low levels of physical activity. Physical function was significantly ($p<.01$) better in younger, physically active patients with less comorbidities and was highest in patients with lower stage cancers and in patients with localized cancer compared to metastatic cancer. High prescription medication use was associated with multiple comorbidities and higher numbers of falls. Those patients that thought a lot about falling reported higher fear of falling ($p<.01$), with women reporting more concern with falling than men. Results from this study imply that not only is it feasible to collect measures of physical function and activity in a geriatric clinic setting, but that physical activity plays an important role in the treatment of the aging cancer survivor. Future research is needed to determine useful intervention strategies to decrease falling in geriatric oncology patients to prevent further physical decline, a critical aspect in geriatric oncology treatment and survival.

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D-034e

DEVELOPING AND APPLYING A STRATEGY TO ANALYZE WEB-BASED INTERVENTION USAGE: FINAL RESULTS OF A WEB-BASED DECISION AID FOR MEN DIAGNOSED WITH EARLY-STAGE PROSTATE CANCER

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Objective: This mixed methods study describes patterns of use of a web tool among men with early stage prostate cancer and the development of a methodological approach to analyzing web-tracking data. Methods: Men (N=56) with early stage prostate cancer used a web-based decision tool prior to their appointment and completed questionnaires, including demographics, decisional and health communication factors. The web tool had embedded tracking producing volumes of readily quantifiable data. However, there is an element of subjectivity in the selection and refinement of specific data to be analyzed and therefore operational terms were developed for usage and content. Web-log data mining was primarily conducted using the SQL (Structured Query Language). In addition, men (N=25) participated in an in-depth qualitative interview within 2-4 weeks after their consult visit. Results: Specific web tool components were more highly utilized while other components were rarely used. The Men's Stories, with actual men's' stories about their diagnosis, treatment decision and challenges, was viewed by 77% of the men and they spent almost half of their time here. In contrast, the Notebook, which is the values clarification tool, was viewed by only 4 men. Men with lower levels of health literacy spent more time in the Men's Stories than men with higher levels of literacy. Those with higher decisional conflict spent more time overall and those who were less confident in their treatment choice were less likely to use it again. Discussion/Conclusions: Because little is known on how to analyze web-log data, it is important to develop novel techniques to better understand and quantify web use to identify different patterns of use. Results confirmed that not everyone uses it in the same way, or as we intend.

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D-034f

SUN PROTECTION AND EXPOSURE BEHAVIORS AMONG US HISPANICS: A QUALITATIVE STUDY

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Background: Skin cancer is related to ultraviolet radiation (UVR) exposure. The rapidly growing US Hispanic population is concentrated mainly in high UVR locations. Hispanics are diagnosed with more advanced skin cancer compared to non-Hispanics and also have less awareness of relevant sun protective and risk factors. Little research has examined sun protection and exposure behaviors among Hispanics.

Methods: Fourteen semi-structured depth interviews were conducted with self-identified Hispanics (mean age= 37 years) residing in western and southern US states. Participants had never been diagnosed with skin cancer. Interviews were conducted in English (n=8) and Spanish (n=6) (averaging 26 minutes) and included questions on sun protection and exposure behaviors (e.g., use of sun-protective clothing, sunscreen use, sunbathing). Interviews were transcribed and coded independently by two researchers who used consensus to resolve discrepancies.

Results: Several themes emerged regarding differential engagement in sun protection and exposure behaviors by gender, language preference, and skin color. Women described more frequent use of sun-protective clothing and sunscreen than men. Spanish-speakers described more frequent use of protective clothing and less sunbathing than English-speakers. There were also differences in attitudes towards tans, with more positive comments about tans and having darker skin described by self-reported light-skinned participants, in contrast with less positive comments on tans from self-reported dark-skinned participants.

Conclusions: This study sheds valuable light on demographic and phenotypic factors that may be associated with sun protection and exposure behaviors among US Hispanics. The results inform the content and targeting of future descriptive and intervention research related to skin cancer prevention among Hispanics.

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D-034g

MEDIATORS OF CHANGE IN PSYCHOSOCIAL INTERVENTIONS FOR CANCER PATIENTS: A SYSTEMATIC REVIEW

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Increasing attention has been directed at testing interventions to improve the quality of life of those coping with cancer. Careful reviews and meta-analyses have made valuable contributions to understanding the efficacy of these interventions. An important next step is to determine the mechanisms, that is, the changes in mediating variables that explain the influence of effective interventions on outcomes. This helps identify how such interventions may be made more effective by enhancing relevant causal chains. This systematic review summarizes the findings from empirical tests of mediating variables in research investigating psychosocial interventions for cancer patients conducted from 1980-2010. Twenty-two projects provided information on mediating relationships. Many of these provided a firm theoretical rationale or justification for considering particular mediating relationships. The investigations varied with respect to the type and goals of the interventions studied, the outcomes and potential mediators examined, and the level of analysis that the variables represented. Although there was some evidence supporting selected mediating relationships, with positive findings often found when the mediating variables tested were tightly related to skills or behaviors targeted by an intervention, the results overall were mixed. Although it is reasonable to prioritize investigating the effectiveness of interventions, expanding the focus of research to include mechanisms in psychosocial oncology intervention research is necessary for providing a unified picture of how mediating relationships may be operating in this field.

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D-034h

LATINA'S KNOWLEDGE OF MAMMOGRAM GUIDELINES: BRIDGING THE GAP IV

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Background: Racial/ethnic minority women are at an increased risk of mortality from breast cancer. To date, no study has examined racial/ethnic minorities' knowledge of prior and recent mammogram guidelines (2003 American Cancer Society (ACS) vs. 2009 United States Preventive Services Task Force; USPSTF) and their impact on health behaviors. Purpose: Bridging the Gap IV examined sociodemographics, health behaviors, knowledge of 5 breast cancer organizations (e.g. National Cancer Institute, ACS, and USPSTF) and their mammogram screening recommendations, and Latinas' decisions to participate in breast cancer research. Methods: Latinas from Texas completed a sociodemographic questionnaire and 90-minute focus/education group that assessed and provided information about breast cancer screenings, organizations, and disparities. Knowledge of breast cancer screenings and organizations was assessed pre- and post-focus group. Results: Of the 81 participants (age M=44.96 years old, SD=18.37; years of education M=13.47), 49 participants completed pre and post-focus group questions. Ninety-five percent of the sample self-identified as Hispanic/Latino with 88.8% reporting Mexican heritage. A paired samples t-test found significant differences in knowledge of breast cancer organizations ($t=-4.29$, $p<.001$). Pre-focus group, ACS and Susan G. Komen Foundation (SGKF) were identified most (>90%, USPTSF=0%). Post-focus group, ACS and SGKF were most commonly reported (88%, 86% respectively), and recognition of other organizations had increased (USPSTF= 57%). Mean change in number of identified organizations was 1; range of organizations was 1-4 and 1-5 in the pre- and post-test respectively. Performing breast self-examinations was correlated with knowledge of more organizations post-focus groups ($r=.35$ $p<.05$). All participants >40 years old ($n=22$) reported having >1 mammogram. Conclusions: Focus groups with an educational component are an effective method of increasing knowledge about breast cancer prevention. Breast cancer, the leading cause of cancer deaths for Latinas, warrants continued education, screening and prevention programs.

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D-034i

FEASIBILITY OF A FACEBOOK-BASED PHYSICAL ACTIVITY INTERVENTION FOR YOUNG ADULT CANCER SURVIVORS: THE FOSTERING IMPROVEMENT THROUGH NETWORKING AND EXERCISING TOGETHER STUDY

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BACKGROUND: While young adult cancer survivors have expressed interest in lifestyle interventions, few studies have assessed the effectiveness of behavioral interventions among this population. eHealth interventions can reach young adult cancer survivors, who are increasingly turning to social networking websites for health information and support. This study evaluated the feasibility and efficacy of a 12-week, Facebook-based intervention aimed at increasing moderate-intensity physical activity compared to a self-help education condition. METHODS: Young adult cancer survivors ($n=86$) were randomly assigned to one of two Facebook groups: 1) intervention; or 2) self-help education control. Intervention participants received materials through a Facebook group, including weekly lessons, moderated group discussion prompts, and access to a goal-setting and self-monitoring website. Control participants also received materials through a Facebook group, including publicly available website links and unprompted group interaction. All participants received a pedometer and were asked to complete self-administered online questionnaires and submit 7-day step counts at baseline. RESULTS: Participants (mean age=31.7, SD=5.1; 91% female) were survivors of 18 different cancer types (20% breast) and were on average 58.2 months (SD=44.0) post-diagnosis. At baseline, participants reported an average of 68.4 minutes (SD=77.0) of moderate-intensity physical activity per week and 5853 steps (SD=2485) per day. Follow-up data were collected after 12 weeks in winter 2011. The primary outcome is physical activity. Secondary and feasibility assessments included quality of life, psychosocial factors, use of social networking and intervention components. CONCLUSIONS: Study implications for recruitment, design and evaluation of future online social networking interventions for young adult cancer survivors will be presented.

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D-034j

SPIRITUAL COPING AND PSYCHOLOGICAL WELLNESS IN CAREGIVERS OF CHILDREN WITH CANCER

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Previous research has indicted a positive association between the use of spiritual coping and adjustment among caregivers of persons with chronic illness (Harrison et al., 2004; Schneider, 2006). The current study aimed to examine the relationship between faith-based coping and psychological and physical health outcomes in a sample of mothers of children with cancer. Maternal caregivers (n=60) completed questionnaires assessing their psychological and physical well-being, and their experience caring for their child with cancer. Measures included the Brief Symptom Inventory (BSI), Parenting Stress Index (PSI), and Parent Experience of Child Illness scale (PECI). Extended items on the PECI include a 5-item scale regarding positive faith-based coping (e.g., "I count on my spiritual community for support") and conflicted experiences with faith ("I feel angry with God,"). Items on the faith-based coping scale exhibited adequate internal consistency (α=.84). After controlling for demographic and illness (e.g., diagnosis type) variables, faith-based coping significantly predicted outcomes associated with psychological adjustment. Specifically, caregivers who endorsed a strong and positive faith exhibited lower levels of anxiety (R2=.19; p<.05), depression (R2=.23; p<.05), stress related to parenting (R2=.36; p<.05) and fewer somatic symptoms (R2=.28; p<.05). Collectively, these results indicate that faith-based coping was associated with more psychological resilience in caregivers, predicting lower levels of anxiety, depression, somatic symptoms and stress. Thus, it may be valuable for clinicians to discuss aspects of faith with caregivers and assess connectedness to spirituality in an effort to facilitate adaptive coping. This can be done by encouraging reliance on spirituality for those who feel positively connected to their faith, or suggesting alternative sources of support/coping for families who feel less connected to spiritual traditions. Ultimately, this practice may help improve the quality of care for families of children with cancer.

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D-034k

ASSESSING A WEB-BASED, TAILORED DECISION AID FOR WOMEN AT HIGH RISK OF BREAST CANCER

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Background: Guide to Decide (GtD) is a web-based, personally-tailored decision aid designed to inform women's decisions about prophylactic tamoxifen and raloxifene use.

Objective: To assess the impact of GtD on participants' decisional conflict levels and treatment decision making behavior at post-test and 3-month follow-up.

Methods: Postmenopausal women, age 40-74, with BCRAT 5-year risk ≥1.66% and no history of breast cancer were randomized to to intervention (n=690) or control (n=322). Intervention participants viewed GtD prior to completing a post-test and 3-month follow-up assessment. Decisional conflict at post-test was assessed using multivariate linear regression, while logistic regression was used to assess treatment decision behavior at 3-month follow-up, comparing intervention to control participants.

Results: Intervention participants had significantly lower decisional conflict levels at post-test and higher odds of making a decision about whether to take prophylactic tamoxifen or raloxifene at 3-month follow-up, compared to controls.

Conclusion: GtD may lower decisional conflict and help women at high risk of breast cancer make decisions about future prophylactic tamoxifen or raloxifene use to reduce cancer risk.

Practice Implications: Personalized decision aids should be used more routinely to reduce patients' decisional conflict and empower patients to choose the treatment strategy that best reflects their values.

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D-034l

PARENT ADJUSTMENT OUTCOMES IN A PEDIATRIC STEM CELL TRANSPLANT POPULATION

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Background: Stem cell transplant (SCT) is a demanding procedure for patients and their parents. We examined parental adjustment outcomes 6-months following SCT in the context of an intervention designed primarily to reduce child distress. Parental outcomes examined include depression (DEP), posttraumatic stress (PTSD), benefit finding (BF), and positive affect (PA). Optimism (OPT) and family functioning (FF) were examined as possible predictors of adjustment.

Methods: 171 patient/parent dyads from 4 sites were randomized to receive one of 3 interventions to reduce SCT-related distress: a child intervention with massage and humor therapy, an identical child intervention plus a parent intervention with massage and relaxation/imagery, or standard care. Parents completed predictive measures of OPT (LOT-R) and FF (FES), and outcome measures of DEP (CES-D), PTSD (UCLA-PTSD), BF (BFS), and PA (PANAS) at admission and week +24 post transplant.

Results: Across the entire sample, all outcome measures were significantly improved at week +24: BF, t(96)=-3.97, p<.001; DEP, t(91)=4.69, p<.001; PTSD, t(96)=3.82, p<.001; and PA, t(82)=-4.97, p=.001. However, there were no significant intervention effects on any of these outcomes. Multiple regression results indicated that OPT was a significant predictor of DEP at week +24 [R2 =.09, F(2, 91) =4.62, p=.01], and OPT and socioeconomic status significantly predicted PA at week +24 [R2 =.15, F(2, 84) =7.12, p=.001]. FF was not significantly related to adjustment.

Conclusions: Reports of DEP and PTSD significantly decreased from baseline to week +24, and fell within normative values. Likewise, reports of BF and PA significantly increased during this time. These findings suggest impressive parental resilience to the challenges of SCT. Improved parent adjustment may also reflect the benefit of increased supportive services provided during SCT. OPT significantly contributed to reports of DEP and PA.

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D-034m

ASSESSMENT OF TOBACCO USE IN HEMATOPOIETIC STEM CELL TRANSPLANT (HSCT) PATIENTS

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Tobacco use is related to worse survival among Hematopoietic Stem Cell Transplant (HSCT) patients. Accurate identification of smoking offers a vital opportunity to assist tobacco users with cessation and relapse prevention. The current study compared pre-transplant self-reported smoking status to serum cotinine levels among HSCT patients at time of pre-transplant evaluation and 15 days post-transplant. Serum cotinine levels greater than or equal to 2 ng/mL were considered to reflect tobacco use within the prior 7 days. A total of 503 participants completed the pre-transplant assessment. These participants were predominately married (80.7%), white/Non-Hispanic (80.4%) men (60%) aged 17- 76 years (X = 55.1, SD=11.9), and pursuing autologous transplant (78%). Thirty-four participants (6.8%) self-reported using tobacco within the past seven days (91% cigarettes, 3% using chewing tobacco; 2% cigars). More than half of self-reported users (63%) reported smoking 10 or fewer cigarettes a day. Using cotinine as the gold-standard of measurement, smoking prevalence was 11.5%. Self-reported use was cotinine-validated in 33 users (53.2%). Self-report was missing in 13 users (21%), much higher than the survey non-response rate (11%). Self-report alone would have yielded 1 false positive (1.6%) and 15 (24.2%) false negative results. Fifteen days post-transplant, repeat cotinine analyses suggested further reduction in the prevalence of tobacco use (3.3%), with 2 continuing false negatives based on pre-transplant self-report. Biochemical validation of negative and missing smoking status within the past seven days appears to significantly increase the accuracy of assessment. These findings may generalize to other understudied survivor populations with cancers unrelated to tobacco.

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D-034n

THE SIGNIFICANCE OF BIRADS CLASSIFICATION OF BREAST ABNORMALITIES - DOES NAVIGATION BENEFIT SOME WOMEN MORE THAN OTHERS? THE SIX CITIES STUDY

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BACKGROUND: In a controlled patient navigation trial in Latinas with abnormal breast screening we found that navigated Latinas with BIRADS 3 achieve definitive diagnosis within 30 days of their initial abnormal screen significantly faster when the 6-month "wait-and-see" period is controlled (86.2% v. 78.4%, p=0.042). Here we explore benefits to navigated Latinas with BIRADS 3 results compared to other navigated Latinas.

METHODS: We compared proportions of BIRADS 3 to other Latinas using Chi-squared tests. We evaluated differences in the number of diagnostic tests experienced, missed appointments, measures of patient satisfaction (overall cancer care and navigation) and psychosocial well-being (Brief Symptom Inventory [BSI], Intrusive Thoughts [IT], and the Mental Health Index [MHI]) using Chi-square and multiple logistic regression analyses as appropriate.

RESULTS: 73/273 (33.6%) Latinas were classified as BIRADS 3. There were no significant group differences in demographic measures. Significantly more BIRADS 3 Latinas were diagnosed within 30 days of the initial abnormality when the 6-month waiting period was controlled (86.2% v. 54.8%, p<0.000). Fewer BIRADS 3 Latinas missed scheduled appointments (11.0% v. 20.8%, p=.050). BIRADS 3 Latinas experienced significantly greater decreases in BSI, IT, and MHI but neither fewer diagnostic tests nor satisfaction measures. In multivariate analyses controlling for covariates, BIRADS 3 women experienced significantly decreased BSI (O.R. 1.059, p=0.050), IT (O.R. 1.028, p=0.041), and fewer missed appointments (O.R. 1/4.473, p<0.000) than other women.

CONCLUSIONS: Patient-centered navigation to assist Latina women with breast screening abnormalities increases expeditious diagnosis more frequently among women with a BIRADS 3 result and has several significant benefits.

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D-034o

INFORMATION PROCESSING OF A SPANISH LANGUAGE COLORECTAL CANCER SCREENING DECISION AID AMONG LIMITED ENGLISH PROFICIENT LATINOS

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Patient decision aids are health interventions and have been effective in improving doctor-patient communication about colorectal cancer (CRC) screening and CRC screening test completion. This study investigated the information processing of a multimedia Spanish language CRC decision aid among limited English proficient (LEP) Latinos guided by the framework of communication and persuasion.

81 participants were recruited from the Latino community in Central North Carolina. Eligibility criteria included self-identification as Hispanic/Latino, self-report of speaking Spanish less than "very well," ages 50-75, average risk for CRC (i.e., no family history of CRC or no personal history of precancerous polyps), and not up-to-date with CRC screening. Information processing measures included personal relevance, liking, understanding, trust agreement, credibility, and message elaboration.

Participants reported finding the information in the decision aid as personally relevant. Most participants responded with a level of "very much so" or "completely" perceiving that the information in the decision aid was especially designed for them (94%), important to them (98%), applicable to their life (95%), and that it mattered to them (96%). Many participants also reported liking (98%) and understanding (95%) the information. Participants reported high trust, agreement, and credibility in the information from the decision aid. The reported credibility score was 27.3 (+0.04) with a possible maximum score of 28. Scores for message elaboration was also high. Most participants reported that the amount of information in the decision was just right (81%).

Determining the information processes of CRC decision aids can enhance our understanding of the target population's appraisal of the intervention content and ultimately help us design more effective messages promoting CRC screening for non-English population.

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D-034p

CORTISOL RESPONSE TO PROSTATE CANCER SCREENING INFORMATION AMONG AFRICAN AMERICAN MEN OF PRE-SCREENING AGE

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Background: African American (AA) men have a 60% higher incidence rate of prostate cancer, are diagnosed at later stages, and have twice the mortality rate of Caucasian men. This disparity is especially salient in North Carolina where African American men have a mortality rate that is almost 3 times that of Caucasian men. There have been several changes to prostate cancer screening (PCS) recommendations placing focus against screening and on education and evaluating physical and psychological harm of screening. Thus a priority is to focus on PCS education in AA men in the effort to evaluate psychological harms of providing PCS information in this high risk group. However, psycho-phsiological correlates of stress related to receiving PCS education has never been studied. Objectives: Asses relationships between cortisol response, masculinity, prostate cancer knowledge and screening intent, health care utilization, and demographic characteristics among African American men (25-40). Results: The participants' cortisol levels after exposure to prostate cancer screening information (M = .157. SD = 08) were significantly less than baseline levels (M =.207, SD = .16), t(53) = -3.65, p = .001. Additionally, participants' level of PCS knowledge after exposure to educational information (M = 64.83, SD = 25.5) was significantly greater (M = 22.08, SD = 24.00), t(35) = 9.36, p = < .001. Interestingly, participants who reported not having a PCP had significantly greater PCS knowledge change scores (M = 52.65, SD = 25.25) than those individual who reported having a primary care physician (M = 30.41, SD = 24.54), t(34) = 2.61, p = .013. However, self- report of PCS knowledge was not significantly different between the two groups after exposure to prostate cancer educational information. Conclusions: Providing prostate cancer screening information to AA men of prescreening age does not appear to be a stressor as measured by salivary cortisol. In fact, anticipatory anxiety may be reduced by prostate cancer education, which is increased after engaging in a brief educational intervention.

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D-034q

PREDICTORS OF HPV VACCINATION STATUS AMONG THE DAUGHTERS OF LOW-INCOME MOTHERS

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Efficacious vaccines against human papillomavirus (HPV), the leading cause of cervical cancer, are currently approved for those 9- to 26-years of age, with parental consent required for the vaccination of minors. Uptake of the HPV vaccine among low-income females has the potential to significantly reduce the excess burden of cervical cancer within this population; however, realization of this potential will be largely dependent upon low-income mothers' decisions regarding vaccinating their minor daughters against HPV. The present study explored potential predictors of mothers' intentions to vaccinate their daughters against HPV, and of daughters' actual HPV vaccination status at 8-month follow-up, as determined by medical record review. N=384 low-income mothers completed a baseline assessment of their knowledge about HPV/the HPV vaccine, perceived pediatrician recommendation, decisional conflict, intent to vaccinate, and other theory-based constructs. Forty-three percent of mothers reported that they intended to vaccinate their daughter; however, intention was not predicted by any other constructs assessed at baseline. At follow-up, only 5% of daughters had completed the full 3-dose vaccine series; 66% had not initiated the series, and 29% had initiated the series but had not received all three doses. Daughters' HPV vaccination status was not predicted by intention nor any constructs assessed at baseline. To better understand mothers' thoughts and informational needs regarding the vaccine, a subset (n=51) was re-contacted and completed a semi-structured interview based on daughters' vaccination status.

Regardless of daughters' vaccination status, mothers reported limited knowledge of what type(s) of cancer the HPV vaccine protects against and a desire for more information, and were primarily concerned about potential long-term vaccine side effects. Among mothers who had initiated the vaccine, physician recommendation (received after the baseline assessment) was described as the biggest factor in their decision.

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D-049a

HOPE-AGENCY PREDICTS ADHERENCE TO CARDIAC REHABILITATION

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Cardiac rehabilitation (CR) provides exercise training and education to patients with cardiac disease. Studies indicate that CR contributes to improved physical and psychological functioning, as well as slowing disease progression among patients diagnosed with cardiac disease. Despite the numerous benefits of CR, it is estimated that 20-50% of patients do not adhere to CR programs or discontinue prematurely. Although psychological distress (e.g., depression, anxiety) is associated with non-adherence in CR patients, prior studies have largely neglected influences of positive psychological variables on adherence. Positive variables (e.g., optimism) have been associated with survival among cardiac surgery patients, but few studies have examined their relationship to adherence. The purpose of this study was to evaluate hope as a predictor of CR adherence. Hope was measured within a goal-setting framework using the Trait Hope Scale (Snyder et al., 1991), resulting in two indicators: "agency" (goal-directed determination) and "pathways" (planning ways to meet goals). 62 patients (18 women; mean age 60.2, SD=11.9; 71% Caucasian; 24% African-American) were recruited from a hospital-based outpatient CR program. All participants completed self-report questionnaires prior to beginning the 36-session (approximately 12 weeks) CR program. Hope-Agency scores were significantly greater among CR completers (n=42) than among non-completers (n=19; p<0.05). In addition, Hope-Agency predicted increased peak oxygen consumption (V02max) from beginning to end of the CR program, controlling for age and gender (R-square change, F(1, 51)=4.21, p<.05). Hope-Pathways and Hope-Total were not related to adherence. Results indicate that greater levels of hope specifically related to goal-directed determination (agency) are associated with CR adherence, but planning ways to meet goals was not associated with adherence. Thus, goal-directed determination may be a more relevant emphasis in CR to enhance adherence than goal-planning, possibly because the structured CR format already may inherently provide sufficient goal planning for patients.

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D-049b

ALZHEIMER CAREGIVING, DEPRESSION, AND ARTERIAL COMPLIANCE IN OLDER ADULTS

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Background: Caregivers (CG) of a spouse with Alzheimer's disease are at increased risk for mental health problems such as depression. Additionally, the chronic stress of caregiving is associated with the development of atherosclerotic disease. Arterial stiffening may be one mechanism by which caregiving stress increases cardiovascular disease risk. Depression in late life has also been associated with atherosclerosis, suggesting that depressed CG may be at even greater risk for arterial stiffening and impaired cardiovascular health.

Purpose: To investigate the relationships among dementia caregiving, depression, and arterial compliance in depressed and non-depressed CG and healthy control subjects.

Methods: 48 elderly adults (mean age 75.2 +/- 6.6 yrs) underwent in-home ultrasound assessment of the carotid artery. Arterial compliance was quantified by computing the incremental elastic modulus (IEM) of elasticity. Depression was assessed using the CES-D 10-item short form (≥ 10 indicates depression). Differences between healthy controls (n=15), non-depressed CG (n=23), and depressed CG (n=10) were analyzed with a linear regression using planned comparisons, controlling for age, gender, and resting Mean Arterial Pressure (MAP).

Results & Conclusions: Depressed CG had significantly higher mean IEM (i.e., higher arterial stiffening) than healthy controls (p=.010, Cohen's d=1.14). Depressed CG also had higher IEM compared to non-depressed CG (p=.031, d=.66). No significant differences were found between non-depressed CG and controls (p=.483, d=.35). Age (p=.001) and MAP (p=.027) were associated with higher IEM, while gender was not significantly associated with IEM (p=.586). These results suggest that CG experiencing depression are those at increased risk for arterial stiffening and potential downstream cardiovascular consequences.

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D-049c

DETERMINANTS OF SLEEP DISTURBANCES IN PATIENTS ATTENDING A CARDIOVASCULAR HEALTH PREVENTION AND TREATMENT PROGRAM

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Sleep difficulties are more prevalent in patients with chronic illnesses than in the general population, impacting the course and outcome of disease. Depression occurs more commonly in individuals with chronic disease and plays an important role in prognosis. While the determinants of depression and cardiovascular disease

(CVD) are beginning to be understood, little research investigates the predictors of sleep difficulties in individuals with or at risk for CVD.This study examines the determinants of sleep difficulties in patients with or at risk for cardiovascular disease.

Patients participating in a cardiovascular health prevention and treatment program (N=185) completed standardized questionnaires assessing sleep quality (Pittsburgh Sleep Quality Index), depressed mood, and perceived stress. Demographic and medical data were also collected. Data were analyzed by t-tests and regression analyses to identify factors associated with poor sleep (global sleep quality and components including latency, duration, medication use, efficiency, disturbance, and daytime dysfunction). Poor sleep (PSQI global score >5) was reported in 48% of participants and occurred more often in persons with depressive symptoms 32% than those without 79% [t(182) -6.75, p<.001)]. A regression of biopsychosocial determinants indicated that depressive symptoms (p<.0001) were the most significant predictor of poorer sleep (R2=.46, p<.0001). Further analyses into the predictors of the individual components of sleep using our biopsychosocial model supported these results, with depression as the strongest predictor of all components. This suggests that sleep problems are highly prevalent in patients attending a cardiovascular health improvement program. Disturbed sleep and depression are highly interrelated and both should be targeted in cardiovascular disease programs to optimise the effectiveness of interventions.

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D-049d

PATIENT PERCEPTIONS OF COMORBID DEPRESSION IN HEART DISEASE

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Purpose: Depression is a common comorbidity in heart disease and is associated with negative outcomes. However, there has been no empirical investigation of cardiac patients' perceptions of their depression, including its perceived causes, consequences, treatability, and duration. The purpose of this study was to examine patient perceptions of depression and how they relate to mood and personality variables in a depressed sample of patients with heart disease. Methods: Participants were diagnosed with either stable coronary heart disease or chronic heart failure, met DSM-IV criteria for a current depressive episode, and were enrolled in a larger study of treatment of depression. Measures included the Revised Illness Perception Questionnaire (IPQ-R) Consequences, Treatment Control, and Timeline Subscales; the International Personality Item Pool (Mini-IPIP; a brief inventory of Big Five personality traits); the Beck Depression Inventory (BDI-II), and the Beck Anxiety Inventory (BAI). Hypothesized correlates of illness perceptions were entered into a hierarchical multiple regression model for each of the three IPQ-R subscales. Results: Complete data were obtained from 112 patients (40% women, age 59±10 years). The most commonly endorsed cause of depression was physical illness, such as heart disease (21%). Other commonly endorsed reasons were emotional (e.g., stress, worry; 15%) and social factors (e.g., work or interpersonal problems; 14%). Depression (t=2.97, p<0.01), and conscientiousness (t=2.6, p<0.05), were associated with a stronger belief that depression has negative consequences. However, neuroticism was the only significant predictor of perceived treatability (t=-2.84, p<.01) and expected duration of depression (t=2.84, p<.01). Conclusions: Patients with comorbid depression and heart disease most frequently perceive physical illness to be the cause of their depressive disorder. Perceptions regarding the consequences, treatability, and duration of depression appear to be more strongly related to personality variables than to mood.

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D-049e

APPLIED MUSCLE TENSION IS ASSOCIATED WITH DECREASED WHOLE BLOOD DONATION TIME

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Applied muscle tension (AMT), which consists of rhythmic, isometric tensing of the large muscles of the legs, buttocks and abdomen, has been shown to attenuate the experience of presyncopal symptoms (e.g., dizziness or lightheadedness) among volunteer blood donors. Previous research suggests that the benefits of AMT may arise from a combination of increases in cerebral blood flow and distraction from ongoing blood collection procedures. The present study examined the possibility that AMT may also exert its salutary effect by increasing blood flow rate and thereby reducing total donation time. Female whole blood donors (n=72) were recruited on-site at American Red Cross blood drives held in the Central Ohio region. The sample was comprised of experienced adult donors (Prior donations: Mean=9, SD=10, Range=0-51; Age: Mean=38.9, SD=16.0, Range=18-70), who were randomly assigned to engage in either AMT or a placebo movement involving gentle foot flexion during their donation. Results of an independent samples t-test revealed that donors who engaged in AMT had significantly shorter blood draw times (i.e., from needle insertion to withdrawal; Mean=653 seconds, SD=204) compared to donors in the placebo movement group (Mean=784 seconds, SD=371), t(70)=-1.88, p<0.05, d=0.49. These findings highlight the need for large-scale studies of the potential role of donation time as a mediator of the benefits of AMT among diverse groups of donors. This is an important issue as presyncopal and syncopal reactions adversely affect donor retention, and therefore efforts to reduce reactions may help to enhance the nation's donor pool.

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D-059a

COMORBID PAIN CONDITIONS IN A CLINICAL SAMPLE OF ADULTS WITH TYPE 2 DIABETES

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Background: Pain is a common comorbid condition in type 2 diabetes (T2DM). Recent research has shown that in addition to neuropathic pain, many types of non-neuropathic pain, such as arthritis, are highly prevalent in adults with T2DM. Previous studies of pain in diabetes have included limited assessment of pain symptoms and their psychosocial correlates. The current study sought to provide more in-depth information about pain in T2DM by including multiple measures of pain and related symptoms.

Methods: Participants (n=95) were adults with T2DM (52% female; 94% Caucasian) with a mean age of 62 years (S.D. 10.7) who were recruited from two endocrinology clinics in southeast Ohio. Participants completed an interview and self-report questionnaires about their experience of chronic pain and psychiatric symptoms. They were then given a pedometer and activity log to complete for 2 weeks in order to determine the relationship between pain severity and activity level.

Results: Eighty-eight percent of participants reported at least one pain condition and 84% reported that they had experienced pain for at least 6 months. When classified by type of pain condition reported, 26% reported no pain-related diagnosis, 45% reported a non-neuropathic pain diagnosis, 5% reported a neuropathic pain diagnosis, and 23% reported both neuropathic and non-neuropathic pain diagnoses. Pain severity was significantly related to average time spent exercising per week (r=-.44, p<.05), average steps walked per week (r=-.63, p<.01), symptoms of anxiety (r=-.40, p<.01), and symptoms of depression (r=-.42, p<.01).

Conclusions: The current study demonstrated that within a clinical sample of adults with T2DM, high rates of chronic pain conditions are present and associated with greater psychiatric symptoms and lower levels of physical activity. Results from the current study can help to guide the development of interventions for pain management that can be used within diabetes treatment settings.

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D-059b

THE ASSOCIATION OF DIABETES DISTRESS AND DEPRESSIVE SYMPTOMS WITH SOCIAL SUPPORT

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Few studies have examined psychosocial risk factors for diabetes-related distress. The purpose of this study was to examine the association of social support with diabetes-related distress and general depressive symptoms in a sample of adults with type 1 (n = 35) and type 2 diabetes (n = 57). Participants (M age = 51, SD = 10; 69% female; 53% Black; 25% Latino) self-reported perceptions of the number of supportive individuals and the quality of available social support on the Social Support Questionnaire-6. They also completed a measure of diabetes-specific distress, (Diabetes Distress Scale; DDS) and a measure of generalized distress (Center for Epidemiological Studies-Depression; CES-D). No differences between type 1 and type 2 diabetes were found on the DDS, CES-D, and social support. Multiple regression analysis controlled for number of self-reported diabetes complications and tested the relationship between social support and DDS. Support satisfaction was significantly associated with lower DDS total scores (β = -.25, p = .04); number of supports was not associated with DDS. In contrast, neither number of supports, nor support satisfaction was significantly associated with CES-D. Further analyses indicated that the interpersonal distress subscale of the DDS was significantly associated with support satisfaction (β = -.32, p = .002) and this relationship remained significant (β = -.27, p = .009) even after controlling for CES-D. These findings support that social support satisfaction is related with less diabetes distress in adults with type 1 and type 2 diabetes, suggesting a specific link between social support and diabetes distress. If this relationship is causal, as proposed by theoretical models such as the stress-buffering hypothesis, our results suggest that interventions that aim to improve the quality of support may minimize the emotional burden of diabetes.

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D-059c

SEDENTARY TIME AND DIABETES PREVALENCE IN LATINOS AND NON-LATINO WHITES

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Latinos in the United States have a higher prevalence of diabetes than non-Latino Whites, a phenomenon that researchers partially attribute to especially low rates of physical activity in Latinos. Recent studies have also shown a relationship between sedentary behavior and diabetes, yet to date no studies have examined sedentary behavior as a mediator of diabetes prevalence between ethnic groups. The purpose of the current study is to explore the influence of sitting time on diabetes prevalence in Latinos and non-Latino Whites in a national sample. Data were taken from the 2010 wave of the National Health Interview Survey (NHIS). Participants (N= 23,691) indicated the number of hours outside of work they spent sitting per weekday, along with weekly minutes of moderate and vigorous activity. Multivariate logistic regressions were used to assess diabetes risk. Age-adjusted rates of sufficient physical activity were significantly lower in Latinos than non-Latino Whites (OR = 0.47, 95% CI: 0.45-0.51). However, Latinos also spent significantly less time sitting than Whites (β = -.15, p = .01). Assessing diabetes risk, controlling only for age, sex and BMI, Latinos were nearly twice as likely to be diagnosed with diabetes than non-Latino Whites (OR = 1.85, 95% CI: 1.64-2.08). When sitting hours were added to the model, the risk for Latinos increased (OR = 2.09, 95% CI: 1.84-2.36). Further adjusting for physical activity had little effect on risk for Latinos (OR = 2.06, 95% CI: 1.81-2.34). In the fully adjusted model with all participants, those who sat for 10+ hours outside of work still had more than twice the risk of diabetes than those sitting for 0-1 hours (OR = 2.30, 95% CI: 1.83-2.89). These data confirm the strong association between sitting time and diabetes, even when controlling for BMI and physical activity, and suggest that the lower rates of sedentary time in Latinos appear to protect them against even higher levels of diabetes. This emphasizes the need to measure and even target this variable in interventions with underserved populations.

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D-059d

NEIGHBORHOOD EFFECTS ON MEDICATION NONADHERENCE IN LATINOS WITH TYPE 2 DIABETES

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BACKGROUND: Cost-related nonadherence to medication regimens has been shown to contribute to racial/ethnic disparities in diabetes outcomes. Although neighborhood disadvantage has been shown to promote unhealthy behaviors in underserved minority populations in general, it is unknown whether there are neighborhood effects on cost-related nonadherence.

OBJECTIVE: To determine whether neighborhood disadvantage is associated with cost-related nonadherence to diabetes medications, independent of individual-level socioeconomic status, nativity and insurance status.

METHODS: Data were collected from a sample of predominantly low-socioeconomic status Mexican American patients with type 2 diabetes currently treated in university-affiliated clinics (N=706). Participants' cost-related nonadherence, income, education, age, gender and years with diabetes were assessed from patient questionnaires. Insurance status was obtained from administrative data. Neighborhood disadvantage was measured using the Neighborhood Socioeconomic Index (NSES), a validated aggregate of block group level indicators (including household income, education, single mother household status, receipt of public assistance and unemployment) from the US Census Bureau, and linked to each participant's home address. The unique association of neighborhood disadvantage with cost-related nonadherence was assessed using a logistic regression model adjusted for individual-level characteristics posited to be associated with cost-related nonadherence (income, insurance status, education, age, gender, nativity and years with diabetes).

RESULTS: NSES scores reflecting greater neighborhood disadvantage in the block groups in which the patient lives was associated with a greater likelihood of cost related nonadherence (adjusted odds ratio [95% confidence interval] 1.03 [1.0,1.1], p=.031).

CONCLUSION: Neighborhood disadvantage is associated with cost-related nonadherence, independent of individual-level socioeconomic status, nativity and insurance status.

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D-059e

FAMILY INTERACTIONS AND DIABETES SELF-MANAGEMENT AMONG AFRICAN AMERICANS

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Much of diabetes self-management happens in the family context, and strategies to improve management outcomes among adults may benefit from a family focus. This research aimed to assess the associations among selected aspects of family interactions and diabetes self-management among African Americans. Adult African Americans with type 2 diabetes were identified from a diabetes registry and invited to complete a phone survey comprised of validated measures of family interactions (cohesion, emotional involvement, problem-solving, and unresolved family diabetes conflict), diabetes self-management behaviors, perceptions of diabetes control, and quality of life. Hemoglobin A1c values were obtained from patients' medical records. The influence of family variables on 3 domains of diabetes management (physiologic, behavioral, and coping) was evaluated first using multivariate analysis of variance (MANOVA). If overall Wilks' λ was significant at p=.05, univariate analysis of variance was conducted for each outcome variable, controlling for demographic and family factors.

Participants included 213 patients (83% of patients contacted and eligible). On average, participants were 59 y of age, with 12 y of education and diagnosed diabetes; 70% were women. In univariate analysis, full models explained significant (p<.01) proportions of the variance in A1c (13%), lifestyle behaviors (14%), medication adherence (11%), mental health (23%), and perceived diabetes control (20%). Regression coefficients for unresolved family diabetes conflict were significant for A1c (p<.05), and three coping variables: mental health (p<.0001), general health (p<.05), and perceived diabetes control (p<.0001). Family cohesion was significantly associated with perceived diabetes control (p<.01).

A family-focused approach addressing issues of unresolved family diabetes conflict may improve self-management behaviors and diabetes control.

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D-062a

PEDIATRIC NURSING STUDENT CLINICAL COMFORT AND WORRY ASSESSMENT TOOL: EXPLORATORY FACTOR ANALYSIS

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Pediatric nursing often causes feelings of fear, which hinders students' performance. This sparked creation of "Pediatric Nursing Student Clinical Comfort and Worry Assessment Tool" which can be utilized by faculty to identify elements of worry before and after clinical rotations. The purpose of this study is to describe development and psychometric testing of this tool. Instrument: Questions were formulated based on areas of worry from the literature. A "balanced" four-point Likert-type scale was used to help eliminate bias. Face validity was determined by leading experts in pediatric nursing education while usability was evaluated by tool administration. Participants: Sample consisted of 100 nursing students with previously earned baccalaureate degree. Average age was 28.5 years, average entrance GPA was 3.49, and the percentage of males to females was 26% and 74% respectively. IRB exemption was obtained. Methods: An exploratory factor analysis was performed to assess construct validity for subscales comfort and worry. KMO test was sufficiently large (KMO = .808) indicating small partial correlations and sufficient sample size. Bartlett's test of sphericity was significantly large ($\chi 2(55)=393.7$, p<.01) indicating the correlation matrix was not an identity matrix. Measures of Sampling Adequacy (MSA) were evaluated demonstrating a value above .7 indicating that correlation matrix is factorable and items were suitable for retention. Results: Varimax rotated factor loadings for both principal components analysis (PCA) and principal axis factoring (PAF) method lend initial support for construct validity and use of summarized scores for comfort and worry analyzed for change over time. Internal consistency for scales was evaluated by calculating Cronbach's α. Alpha was found to fall within generally accepted ranges (comfort .806, worry .766). Conclusion: Psychometric tests used to assess data quality, reliability, and construct validity demonstrated this tool can be used to evaluate nursing students' comfort and worry in pediatric nursing clinical rotations.

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D-070a

FORMATIVE DEVELOPMENT OF A BIDIRECTIONAL PERSONALIZED TEXT MESSAGING ADHERENCE INTERVENTION FOR RURAL HIV+ DRUG USERS

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Rural HIV+ populations, especially those in the U.S. South, communities of color, and drug users, have high rates of stigma, isolation, and barriers to adherence. Mobile phones have the potential to reach these communities and reduce health disparities. African Americans use more minutes of mobile phone time per capita than others. The familiar technology of text messaging could collect assessment data and respond in real time with personalized messages to improve adherence. We describe formative research completed to develop a personalized text messaging application for rural drug users. To ensure cultural relevance of the intervention, we conducted formative interviews and a usability trial. 18 patients reporting recent drug use from 3 rural community HIV clinics participated in 90 minute recorded and transcribed interviews with study staff. They provided information on barriers to adherence, attending clinic visits, getting medications, and substance use-non-adherence links. They viewed slides of intervention components and provided feedback on acceptable text messages and queries per day, coded messages about recent substance use, and likelihood of responding to different types of text queries. Additionally, 14 health providers (pharmacists, nurses, physicians) completed 15-minute interviews sharing their perspective of the challenges to adherence and suggestions for intervention components for their patients. Using qualitative coding methods, we extracted key themes from interviews around treatment barriers, privacy concerns, drug use, and perceptions of HIV care. We addressed these themes in the draft intervention, which specified the functions, content, and flow of the application. We tested the intervention with 3 HIV+ volunteers to determine its usability. Based on this formative research, our intervention was finalized and is now being programmed. It will be tested for feasibility and efficacy in a pilot RCT.

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D-070b

PLACEBO PILL TRIAL USE IN YOUTH WITH BEHAVIORALLY-ACQUIRED HIV INITIATING HAART

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Background: Adolescents and young adults (AYAs; 13-24 years old) represent the fastest growing population of new HIV infections in the United States. Although available treatments have improved survival rates, nonadherence to highly active antiretroviral therapy (HAART) regimens is prevalent and has significant implications for treatment response and health outcomes. Thus, HAART nonadherence is a significant public health issue and innovative interventions are needed. Placebo pill trials (i.e., inactive treatment regimens designed to mimic the HAART regimen) provide a novel method to address barriers to HAART adherence prior to medication initiation; however, their efficacy in an AYA population is unknown. Method: The current retrospective study examined use of placebo pill trials prescribed via routine clinical care prior to HAART initiation in an urban pediatric HIV clinic. Demographic and disease marker data related to medication adherence, including Viral Load (VL), CD4 count, and CD4% were systematically abstracted via medical chart review for all AYAs with behaviorally acquired HIV and initiating HAART during a 3-year period. Results: 63 AYAs (63.5% male, 96.8% African American) were diagnosed with HIV (at 19.0±1.6 years) and initiated HAART (at 19.5±1.6 years). Of the total sample, 63.5% received at least one placebo trial, 22.2% received a second trial, and 7.9% received a third trial. Controlling for disease markers at baseline, no significant differences were found on disease markers between those receiving a placebo pill trial and AYAs not receiving a trial at six months ($p>.05$) post-HAART initiation. Discussion: It may be that placebo pill trial use promotes initial HAART readiness; however, these results suggest additional intervention is needed to promote adherence over time. Further development of novel interventions for AYAs will help address widespread HAART nonadherence observed within routine clinical care.

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D-070c

TRANSLATING RESEARCH INTO PRACTICE: THE INFLUENCE OF ORGANIZATIONAL AND CLIENT FACTORS ON FIDELITY OF AN EVIDENCE-BASED PROGRAM

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The current emphasis on evidence-based practice increases the significance of fidelity in translation of programs. There is a paucity of data on fidelity of widely disseminated HIV/STI behavioral counseling and testing programs, including RESPECT. The present study examined client fidelity for 26 public health departments (PH) and community based organizations (CBO) delivering RESPECT across the U.S. We obtained anonymous client reports on the counseling session (N=808), and client data were used to construct agency-level fidelity scores. Fidelity varied (range: 0-6), with 70% of agencies demonstrating high fidelity. We examined client (i.e., age, gender, race/ethnicity, risk) and agency (i.e., locale and type) characteristics with regard to fidelity. Variables significant at the univariate level were entered into a multivariate analysis. Multivariate logistic analyses, controlling for cluster effects, client risk (OR=1.9; 95% CI= 1.4, 2.8), and type of organization (CBO vs. PH; (OR=2.9; 95% CI= 1.3, 4.6)), showed that only client race/ethnicity was significantly associated with high fidelity ((OR=2.7, CI= 1.9, 3.8) African Americans vs. whites; (OR= 1.7, CI= 1.0, 2.9) Hispanics vs. whites). Results indicate that, as anticipated, program delivery was modified for persons with low risk. Unexpectedly, delivery was also modified such that program fidelity was lower for white clients and for clients attending PH clinics. Together these findings suggest that: (a) staff may use client stereotypes in modifying program delivery in ways that impact fidelity, (b) organizational factors (e.g., training differences between CBOs and PHs) may influence fidelity, and (c) most agencies are delivering RESPECT well, but a significant number of agencies have moderate to poor fidelity.

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D-070d

SOCIAL SUPPORT BUFFERS STRESS EFFECTS ON VIRAL LOAD IN HIV

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In our longitudinal study of people with HIV we have previously shown that stress, depression and avoidant coping predicted disease progression whereas social support did not (Ironson et al., 2005). In the present investigation we restricted the analysis to people before and after undergoing a stressful death or divorce during the longitudinal study in order to investigate the role of psychosocial factors in providing a potential buffer. We hypothesized that social support and coping would play a more significant role during times of stress.

Method: We identified 47 people in a longitudinal sample (out of 177) of people with HIV who had a death or divorce which they rated as -2 or -3 on a 7 point Likert scale (from 1- to +3), and who did not have a stressful death or divorce in the immediate time point before or after the index event. Coping was measured with the COPE and included adaptive (active coping, positive reframing, etc.) and avoidant (denial, behavioral disengagement) strategies. The ESSI was used to measure social support.

Results: The study found that only social support protected against a significant increase in viral load from pre event(death, divorce) to post event (partial r = -.33, p=.027, df=43), such that those higher in social support had a significantly lower increase in viral load, even after controlling for viral load before the event and antiretroviral medications. Neither adaptive or avoidant coping significantly buffered the effect of stress on viral load. There were no significant changes in CD4 from before to after the index event.

Conclusions: These findings suggest that examining buffers in the context of a stressful life event may uncover a role previous unidentified. Thus, social support may be particularly helpful as a buffer during times of stress such as bereavement or divorce.

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D-070e

TREATMENT ADHERENCE SELF-EFFICACY MEDIATES THE ASSOCIATION BETWEEN DISCLOSURE CONCERNS AND MEDICATION NONADHERENCE IN PEOPLE LIVING WITH HIV/AIDS

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Adherence to antiretroviral therapy (ART) is crucial to treatment efficacy among people living with HIV/AIDS (PLWHA), yet concerns about disclosing one's HIV status and limited adherence self-efficacy may impede medication taking. We examined a mediation model of adherence in a cross-sectional study of 238 PLWHA at an outpatient clinic on the U.S.-Mexico Border. Over 86% of our sample were of Mexican descent, 87% male, 40% in a committed relationship, 61% currently unemployed, and 36% exclusively heterosexual; mean age was 45.8 years (SD =10.5). We administered in English and Spanish the Multidimensional Measure of Internalized HIV Stigma, including the Disclosure Concerns subscale (M=12.7, SD=6.9), the Simplified Medication Adherence Questionnaire (M=1.6, SD=1.7), and the HIV Treatment Adherence Self-Efficacy Scale (M=101.4, SD=22.9). Both disclosure concerns (r=.21, p<.05) and poor treatment adherence self-efficacy (r=-.33, p<.05) were related to non-adherence Mediation analyses indicated disclosure concerns had a direct effect on medication non-adherence (c path β=.21, p<.05) and an overall partial mediation effect through treatment adherence self-efficacy (c' path β=.15, p<.05). Although the effect of disclosure concerns was still significant after the mediator was entered into the model, a Sobel test revealed that the indirect effect was statistically different from zero, Z=2.51, p<.05. These data are consistent with the idea that treatment adherence self-efficacy may be reduced, especially in social situations, because of fear of disclosure associated with medication-taking. Stigma-reduction interventions to dispel disclosure concerns and bolster treatment adherence self-efficacy may be helpful in this population.

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D-081a

A PILOT STUDY EXAMINING CHANGE IN THE OQ-45 ACROSS FOUR VISITS TO A DOCTORAL PSYCHOLOGY TRAINING CLINIC

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The Outcome Questionnaire-45 (OQ-45; Lambert, Burlingame, Umphress, Hansen, Vermeersch, Clouse, & Yanchar, 1996) is a self-report instrument designed to assess symptoms of distress across three primary areas: symptom distress (SD), interpersonal relationships (IR), and social role performance (SR). The OQ-45 has been investigated as a measure to assess change in university counseling center clients and has been found to meet criteria in detecting change sensitivity in such settings (Vermeersch, Whipple, Lambert, Hawkins, Burchfield, & Okiishi, 2004). Furthermore, research into the number of sessions related to the occurrence of clinically significant improvement on the OQ-45 has been investigated (Lambert, Hansen, & Finch, 2001; Wolgast, Lamber, & Puschner, 2004; Wolgast, Rader, Roche, Thompson, von Zuben, & Goldberg, 2005) with results generally indicating 14 or greater sessions were needed for about 50% of clients to meet such criteria. The current pilot study aimed to determine if clinically meaningful change was observed within the first four sessions on the OQ-45 for clients who received psychological services at a university training clinic staffed by primarily novice clinical psychology students. The study consisted of 28 participants who engaged in an intake interview and three psychotherapy sessions, with anxiety being the most frequent presenting problem at intake (n=12). Results indicated statistically significant decreases from the intake to the third session across the OQ total score and three subscales (all p's=.00). Standardized mean difference effect sizes across the subscales ranged from .38 (IR) to .74 (SD). Large effects were observed for OQ total score (.74) and SD (.74) whereas smaller but still clinically meaningful effects were observed for IR (.38) and SR (.58). Findings suggest clinically meaningful change can occur in university training clinics and that this change can occur within a total of four visits. Implications and directions for further research are discussed. Suggestions for using the OQ-45 in integrated health care settings are offered.

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D-081b

PATIENT LANGUAGE PREDICTS ANTIDEPRESSANT PERSISTENCE IN PRIMARY CARE

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Backgound:

Primary care providers write approximately 65% of all antidepressant (AD) prescriptions in the U.S.; however, premature discontinuation of these medications remains a significant challenge to successful treatment. We investigated whether patient language reflecting interest in starting ADs (change talk) could be a potential early predictor of antidepressant persistence (length of therapy without exceeding a 30-day gap in treatment).

Methods:
Patients beginning a new treatment episode for major depression were recruited from six urban community health centers as part of an RCT studying the impact of Motivational Interviewing (MI) on depression outcomes; 1st and 2nd encounters with primary care providers within 3 months of enrollment were audio-taped. Patients prescribed an antidepressant were selected for analysis (n=53), and blinded raters coded all taped encounters using the MI Skill Code (MISC) 2.1 for change talk (CT). AD persistence was determined from pharmacy refill records over 9 months. We considered race, ethnicity, gender, age, baseline depressive symptoms, and treatment preference as possible covariates in a forward linear regression; we retained covariates significant at p<0.2.

Results:
The population was 23.1% male (n=12); mean age was 49.1 years (S.D. 12.8, range 23-73); mean number of CT counts/encounter was 1.3 (SD 1.1, range 0-3); and mean AD persistence was 3.9 mos. (S.D. 2.9, range 1-9 mos.). Multivariate linear and logistic regression models adjusted for gender, age, and baseline depressive symptoms found that CT was significantly associated with better persistence (CT F-value=8.5; p=0.005; R2=0.23).

Conclusion:
Patient language may be a predictor of antidepressant persistence in primary care, helping to inform early clinical decisions about treatment. Additionally, clinical interventions designed to increase patient change talk may help facilitate better persistence.

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D-081c

LACK OF POSITIVELY REINFORCING BEHAVIORS UNDERLIES REINTEGRATION DIFFICULTIES FOR OEF/OIF VETERANS

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Almost 2 million soldiers have been deployed to OEF/OIF with 25-56% reporting reintegration difficulties. Poor reintegration can result in social isolation, which is as much of a risk factor for early death as smoking and poor diet. We hypothesized that a lack of positively reinforcing behaviors may underlie poor reintegration. We expected a direct relationship between few positively reinforcing behaviors and poor reintegration and an indirect relationship through increased symptoms of post-deployment disorders (PTSD, depression and high somatic symptoms).

132 OEF/OIF Veterans, recruited from a VA tertiary specialty clinic, completed the questionnaire which included the Pleasant Activities List to measure positively reinforcing behaviors, the SF-36 to measure reintegration, as well as the PHQ-9, PHQ-15 and PCL.

The majority of Veterans screened positive for high somatic symptoms (59.5%), PTSD (50.4%) or depression (59.7%), with 42% of the sample presenting with all three. Most reported poor physical (mean 42.8) and mental health reintegration (mean=34.6). Lower positively reinforcing behaviors were associated with greater somatic symptoms (r=-.46), greater depression (r=-.47), greater PTSD (r=-.45) and worse physical (r=.38) and mental health reintegration (r=.45). PTSD (CI=.009 to .086) and depression (CI=.071 to .205) mediated the relationship between positively reinforcing behaviors and mental health reintegration. Somatic symptoms (CI=.029 to .115) mediated the association between positively reinforcing behaviors and physical health reintegration.

For these OEF/OIF Veterans, a lack of positively reinforcing behaviors was associated with poor reintegration. Interventions that target increasing positively reinforcing behaviors, such as Behavioral Activation, may improve reintegration of OEF/OIF Veterans.

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D-081d

THE IMPACT OF DEPRESSIVE SYMPTOMS TWO MONTHS POST HIP FRACTURE ON PHYSICAL ACTIVITY AT 12 MONTHS POST HIP FRACTURE

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Depressive symptoms after a hip fracture can hinder participation in physical activity, one indicator of functional recovery. This longitudinal secondary data analysis explored modifiable factors that influence depressive symptoms at two months post hip fracture and tested the impact that these had on 12-month physical activity while controlling for age, cognitive status, co-morbidities, fear of falling (FoF), pain, self-efficacy and outcomes expectations for exercise, gait and balance and number of visits with an exercise trainer. Data were collected from 154 women participating in a clinical trial that examined the efficacy of an in-home exercise program post hip fracture. Structural equation modeling using the AMOS statistical program was conducted to test the proposed model. The majority of the participants were Caucasian (97%), 81.0±6.9 years old, had 1.2±1.4 chronic illnesses, and mean MMSE of 26.4±2.9. The mean CESD score at 2 months post hip fracture was 10.5±9.1 and approximately one fourth of the participants had CES-D scores ≥ 16 indicating a need for further evaluation for depression. Two month mental and physical health status and FoF were significantly associated with depressive symptoms at 2 months post fracture and explained 46% of the variance in depressive symptoms. Although there was a trend suggesting that depressive symptoms and FoF at 2 months post fracture were associated with physical activity at 12 months, only age and gait and balance at 2 months were significantly associated with 12-month physical activity. Interventions to improve mental and physical health status and FoF may be beneficial in reducing depressive symptoms early on after hip fracture. Addressing gait and balance problems and reducing depressive symptoms and FoF early on in the post hip fracture trajectory may help maximize participation in physical activity in the first 12 months post hip fracture.

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D-081e

A LOW-INTENSITY INTERVENTION TO IMPROVE FOOD BEHAVIORS OF MENTALLY ILL ADULTS

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Mental illness increases risk for metabolic conditions: diabetes, obesity, CVD and respiratory ailments. Many anti-psychotic medications cause weight gain. Most mental health facilities do not offer dietary interventions to reduce physical health risks. We provided technical assistance and training to a community mental-health "clubhouse" to increase their capacity to intervene on dietary habits of adults with severe mental illness. Food lessons integrating nutrition facts with food examples and hands-on food preparation were taught to leaders using a train-the-trainer model. Members participated in 6-weekly team sessions led by trained staff & peer leaders, used a pocket-sized log book to circle fruit and vegetable intake, and completed monthly short food frequencies. Food environment and policy changes impacted the dietary quality of food offered in the facility and reinforced lessons.

Diet behavior changes were assessed using 3 primary consumption indicators: 1) combined fruit/vegetable (F/V); 2) combined diet/regular soft drinks (SD); 3) fats/oils/sweets (F/O/S). Participants (N=455) completed at least baseline (B) and follow-up (FU) dietary assessments. From B to FU, there was a significant ($p<0.01$) change in F/V consumed (n=405): 43% ate more servings/day than at B; 76% increased or maintained consumption levels at FU ($p<0.01$); mean F/V consumption increased from 7.01 servings/day at B to 7.90 at FU ($p<0.01$). Similarly, in combined SD consumption (n=375): 39% drank less SD/day and 63% maintained or decreased their SD consumption ($p<0.01$); mean 12 oz. servings/day decreased from 5.84 at B to 5.38 at FU ($p<0.01$). The greatest change was in F/O/S consumption (n=404): mean servings decreased from 4.22 to 3.80 ($p<0.01$); 84% of participants maintained or decreased their fat/oil/sweet consumption; 35% reduced their number of daily servings ($p<0.01$).

Mental health professionals can positively impact dietary habits of clients with low-intensity interventions if given simple tools and training.

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D-081f

PERCEIVED INTERPERSONAL BURDENSOMENESS AND BELONGINGNESS AS PREDICTORS OF MENTAL AND PHYSICAL HEALTH IN A COMMUNITY SAMPLE OF ADULTS

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A. Problem or Major Purpose:
Findings from past studies have shown belongingness and burdensomeness to be predictors of suicide risk (Brayan, 2011; Joiner, 2005). Some studies have even found burdensomeness to be a more significant predictor than belongingness (Lamis & Malone, 2011). Although suicide risk is associated with poor mental health, the relationship between belongingness and burdensomeness with more general mental and physical health outcomes remains unclear. Thus, the purpose of the study was to examine the belongingness and burdensomeness as predictors of mental and physical health in adults.

B. Procedure:
We used scores obtained from the SF-36 (Ware, 2004) and the WHOQOL (World Health Organization, 1996) to assess for 13 dimensions of physical (e.g., physical functioning) and mental health (e.g., emotions). One hundred middle-aged, predominately White, adults participated in the present study.

C. Results
We conducted regression analyses, in which burdensomeness and belongingness were entered to predict the 13 dimensions of physical and mental health. Results showed that these predictors accounted for significant variance in 10 out of 13 dimensions. In 7 out of these 10 results (ΔR2 values ranging from .196-.543), belongingness was found to be the most robust and significant predictor within the set.

D. Conclusions and implications:
Although belongingness and burdensomeness have been conceptualized as important and unique predictors of suicide (Joiner, 2005) results from this study suggest that when predicting less extreme health outcomes (e.g., general physical health), belongingness may represent the most important variable within the set. Thus, it would be important in future research to determine if improving experiences of belongingness actually is associated with positive changes in general mental and physical health in adults.

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D-081g

A COMPARISON OF THREE TREATMENTS FOR RECENT TRAUMA ON TRAUMA RELATED COGNITIONS

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This presentation describes a study of subjects who had experienced a recent trauma (within 6 months). According to the Davidson trauma scale cutoff of 32, 75% met criteria for PTSD. One hundred and six subjects were randomly assigned to four sessions of one of three treatments. One treatment was individually administered therapy (EMDR). A second treatment was trauma-oriented stress management (SMT) administered in groups. The third treatment (the control group) was group administered expanded Psychological First Aid (PFA; based on the Red Cross program). There were 77 completers at 3 months.

The Posttraumatic Cognitions Inventory (PTCI, Foa, Ehlers, Clark, Tolin and Orsillo, 1999) a self report 33 item scale with 3 subscales was used to measure trauma related cognitions that develop and maintain posttraumatic stress disorder (PTSD). The questionnaire was administered at Pre, Post (after 4 treatment sessions) and at 3 month follow-up. The PTCI examines negative cognitions about self (SELF), negative cognitions about World (World) and Self-blame (Blame). The three factors and the total score correlate highly with measures of PTSD. Our results showed that the PTCI total score showed a significant interaction of group assignment by time ($F=4.14$, $p=.020$) such that on the PTCI total score the PFA increased over time whereas in the EMDR and SMT groups the PTCI decreased over time. Further examination of the subscales of the PTCI revealed that the interaction was driven by a significant decrease in the subscale measuring negative cognitions about the world ($F = 6.79$, $p = .002$).

Further analysis and interpretation of the results will be discussed.

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D-086a

COMMUNITY RECRUITMENT OF MEMORY LOSS PATIENT AND CAREGIVER DYADS

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Background: Obtaining representative samples and a sufficient number of participants are common challenges when recruiting for clinical trials. We reviewed the methods and challenges faced in community recruitment for a translatable medication adherence intervention trial targeting dyads of patients with memory loss living in the community and their informal caregivers.

Methods: Our initial eligibility criteria required patients to have Mini-Mental State Examination (MMSE) scores between 10 and 20 (possible range: 0-30) and a willing caregiver. Recruitment was targeted at several community sites that served patients with Alzheimer's and other dementias. These included an Alzheimer's treatment center, elder day care centers, support groups, family service organizations, and a research registry. We had a Community Advisory Panel (CAP) comprised of members of clinical sites and community organizations serving older adults.

Results: An initial challenge was that our eligibility criteria were not representative of the population we were seeking. Community dwelling patients had more cognitive deficits than anticipated. Alternatively, MMSE scores were higher for patients tested in the home than obtained in clinical settings which required us to clarify our inclusion criteria to better represent community dwelling patients. Previously successful recruitment sources were slower to yield participants, possibly due to over-recruitment by other studies. In conjunction with advice from the CAP we increased recruitment by using targeted mailing lists, Meals-on-Wheels centers, pharmacies, home healthcare providers, and online listings. Monthly enrollment increased from 2 to 4 dyads as a result.

Conclusion: Investigators need to be open to multiple methods of community recruitment. Community Advisory Panels are useful resources toward achieving targeted number of participants and representative samples.

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D-091a

THE ASSOCIATIONS OF FIBER, WHOLE FRUITS/VEGETABLES, AND JUICE INTAKE WITH PLASMA BETA-CAROTENE CONCENTRATIONS IN A MOTVATED POPULATION

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Background: Research indicates that fiber and the physical state of fruits/vegetables impact plasma beta-carotene concentrations; however most of this research was laboratory-based. There is a need to investigate the impact of these dietary constituents on plasma beta-carotene concentrations in a free-living population that is motivated to increase their fruit/vegetable intake.

Methods: We conducted a cross-sectional analysis using 12-month follow-up data from 1169 subjects from the Women's Healthy Eating & Living Study (WHEL). We examined the associations of dietary intake of soluble and insoluble fiber (g), beta-carotene from whole fruits/vegetables (mcg) and beta-carotene from fruit/vegetable juice (mcg) with plasma beta-carotene concentrations (µmol/L). We also determined if there was an interaction between juice intake by fiber type and whole fruits/vegetables intake by fiber type.

Results: Soluble and insoluble fiber, whole fruits/vegetables, and the juice explained 44.4% of the variance in plasma beta-carotene concentrations. Whole fruits/vegetables had the largest, positive impact on plasma beta-carotene concentrations (beta = 0.094, $p < 0.01$) followed by the juice variable (beta = 0.054, $p < 0.001$), soluble fiber (beta = 0.046, $p < 0.001$), and then insoluble fiber (beta = 0.018, $p < 0.05$). There were no statistically significant interaction effects of fiber with dietary beta-carotene intake.

Conclusion: Plasma beta-carotene concentrations increase as whole and juiced fruit/vegetable consumption increases. Whole fruits/vegetables have the strongest positive impact on plasma beta-carotene concentrations followed by fruit/vegetable juice. Both types of fiber also had a positive impact on plasma beta-carotene concentrations but to a lesser extent than whole and juiced fruits/vegetables. We hypothesize that similar associations would be seen in any motivated population.

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D-091b

MOTIVATION AS A CORRELATE OF FRUIT AND VEGETABLE INTAKE AMONG US ADULTS PARTICIPATING IN THE NATIONAL CANCER INSTITUTE'S FOOD ATTITUDES AND BEHAVIORS (FAB) SURVEY

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Background: Motivation has been identified as a critical correlate in understanding a variety of health-related behaviors (i.e. medication adherence, smoking cessation, etc.). Yet, few studies have assessed the relationship between motivation and FV intake. Self-determination theory suggests that intrinsic motivation may be a predictor of healthy behaviors, and social contextual influence such as social support may interact with motivation to affect health behaviors. This study seeks to examine, the unique relationship between intrinsic motivation, extrinsic motivation, the interaction between the two, and FV intake among US adults. This study will also assess the role of social support and how it may moderate the relationship between motivation and FV intake.

Methods: The 2007 National Cancer Institute's Food Attitudes and Behaviors (FAB) Survey was developed to assess the strongest correlates of fruit and vegetable (FV) intake among US adults. Data from FAB were weighted, outliers removed, and imputation conducted. FAB consisted of a sample of 3,397 adults (57% response rate). FV intake was assessed using a 16-item FV screener that has been previously validated. Intrinsic (13 items) and extrinsic (6 items) motivation were self reported. All statistical analyses were conducted using SPSS v. 19.

Results: Multiple regression analyses found that FV intake was associated with both intrinsic and extrinsic motivation scores. Intrinsic motivation ($\beta=.28$, $p<.0001$) explained more of the variance than extrinsic motivation ($\beta=-.38$, $p<.0001$), or the interaction between the two ($\beta=.07$, $p<.01$). Social support significantly moderated the relationship between motivation type (intrinsic, extrinsic, interaction between the two), and FV intake.

Conclusions: Study findings suggest that motivation is a significant correlate of FV intake, in particular intrinsic motivation. As expected, social support is an important intervening variable when evaluating health behaviors.

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D-091c

IMPROVING SCHOOL BREAKFAST PARTICIPATION IN HIGH SCHOOLS: OUTCOMES OF PROJEC BREAK!

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The purpose of Project BREAK! was to test the efficacy of an intervention to increase student participation in the reimbursable School Breakfast Program (SBP) through improved access to and promotion of the SBP, while maintaining or reducing total calories and preventing weight gain among high school students. Four high schools were randomized to SBP as usual or intervention conditions. A randomly selected cohort of students ($n=208$) completed a survey, one 24-hour recall and had their heights and weights measured at the beginning of the school year and 6 months later. The food service department provided SBP participation data. The two intervention schools developed a grab-n-go reimbursable menu, added a convenient serving location, allowed eating in the hallway and marketed their program. Intervention students enrolled in free-reduced priced meals significantly increased their SBP participation between baseline and post intervention (16.1% to 26.3%, $p=0.04$) while students enrolled in free-reduced priced meals in the control group did not experience a significant difference (15.6% to 11.4%, $p=0.42$). Significant differences between groups were also seen among girls and approached significance among nonwhites ($p=0.09$). The control group significantly increased total daily calories by 431 ($p=0.03$) while the intervention group did not experience a significant difference. BMI-for-age percentile for controls increased significantly from baseline to post intervention (62.8 to 65.4, $p=.006$) with no difference for intervention students (62.0 to 61.9, $p=0.89$). Improving access and promoting the SBP increases program participation is feasible, and may be especially beneficial to high schools students at risk for breakfast skipping.

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D-116a

CONFIRMATORY FACTOR ANALYSIS OF THE CHILD FEEDING QUESTIONNAIRE IN A LARGE SAMPLE OF LOW-INCOME HISPANIC AND AFRICAN AMERICAN MOTHERS WITH PRESCHOOL CHILDREN

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Background: The Child Feeding Questionnaire (CFQ) has been widely used to examine the relationship between parent feeding practices, child eating habits, and body weight. Validation work on the CFQ has been largely based on populations of non-Hispanic White families of middle to higher socioeconomic status and to a lesser extent in large samples of low-income, racially/ethnically diverse populations.

Methods: Low-income African-American (n=666) and Hispanic (n=296) mothers/caregivers with preschool aged children (2-5 years), drawn from two interventions and one longitudinal study, completed the CFQ at baseline. The objectives of these analyses were to replicate the factor structure for five CFQ subscales (ie. perceived responsibility, concern about child weight, restriction, pressure to eat, and monitoring) in two minority samples and to test measurement invariance between these groups.

Results: Confirmatory factor analysis using categorical data methods from MPlus 6.11 demonstrated somewhat reasonable model fit (χ2=736.9, df= 250, RMSEA=0.064, CFI=0.95, TLI=0.94) after removing two low-loading items (<0.30) from the 'restriction' sub-scale. Invariance analyses showed differences in factor loadings, variances, and thresholds across ethnic groups.

Conclusions: The instability of one of the CFQ sub-scales when tested on this sample of low-income, African-American and Hispanic mothers supports the need for some modification. These findings parallel previous studies suggesting refinement of this instrument may be necessary when used with minority and/or low-income populations.

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D-116b

SOFT DRINK INTAKE, BINGE EATING, AND NOCTURNAL EATING IN TREATMENT-SEEKING OBESE HISPANIC PATIENTS

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Soft drink intake has been linked to negative health outcomes, including increased body mass index (BMI) and insulin resistance. Few studies have examined soft drink intake among among Hispanics, a group at increased risk for obesity, or among obese patients with binge eating disorder (BED). This study examined soft drink intake and its relation to metabolic variables and disordered eating (i.e., binge eating, nocturnal eating, and eating disorder psychopathology) in a consecutive series of 77 obese (mean BMI=37.22±5.41 kg/m2) Spanish-speaking-only patients with BED (n=40) or without BED (n=37). Participants were assessed using Spanish-language versions of semi-structured interviews and measures, including the Spanish Eating Disorder Examination (S-EDE). Regression models were tested to examine the relation between binge eating, nocturnal eating (NE), and 1) presence of daily soft drink intake, 2) volume of daily soft drink intake, and 3) intake of regular vs. diet soft drinks. Overall, 57.1% of patients reported consuming soft drinks on a daily basis (mean 35.35±31.55 oz.). Logistic regression analyses revealed that women (OR=8.73, p=0.02) and those with higher eating disorder pathology global scores (OR=2.48, p=0.03) were more likely to have soft drinks daily. Women (OR=17.31, p=0.04) and those who met criteria for BED and NE (OR=27.20, p=0.01) were more likely to consume only diet as opposed to regular soft drinks. Based on a hierarchical linear regression analysis, a diagnosis of both BED and NE was associated with increased daily soft drink intake while controlling for age, sex, education, BMI, and eating disorder pathology (β=34.48, SE=7.60). However, a diagnosis of BED or NE alone was not associated with daily soft drink intake. Soft drink intake was also not associated with metabolic risk factors. Given that soft drink intake is associated greater eating disorder psychopathology, these findings may highlight a need for the assessment of soft drink consumption in the context of binge and nocturnal eating episodes.

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D-116c

BOTH WEIGHT STATUS AND BODY PERCEPTIONS EXPLAIN WEIGHT LOSS BEHAVIOR IN ETHNICALLY DIVERSE ADOLESCENTS

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The obesity epidemic in children is a nationwide major public health issue, with increased risk of various health problems such as asthma and cardiovascular disease. Overweight and obese children are also at an increased risk for psychosocial problems such as low self-esteem. Weight loss behaviors are increasingly common among children and adolescents, but little is known about the influence of actual weight and perceptions about one's body on these behaviors. We hypothesize that weight perceptions mediate the relationship between measured weight status and weight loss behaviors in adolescents and explore how these relationships differ across race/ethnicities and gender. The present study examined measured weight status, body perceptions, and reported weight loss behaviors in non-Hispanic White (28.1%), Hispanic or Latino (34.2%) and non-Hispanic African American (37.7%) male and female 5th graders (N = 4,710). Forty-six percent of the sample had a measured body mass index (BMI) classifying them as overweight or obese, even though 93% reported that their bodies were similar to what the average adolescent their age "should look like." Regression-based path analyses were used to examine the hypothesized mediating relationship and potential differences in race/ethnicity and gender. Perception of one's body mediates the association between measured weight status and reported prior and current weight loss behaviors. Although Hispanic and African American adolescents were more likely to report having tried to lose weight both in the past and currently, body perceptions did not vary between the three racial/ethnic groups. Additionally, the results indicated that this mediating relationship occurred more so in females compared to males. Initiation of weight loss behaviors thus appears to be influenced by both actual weight status and perceptions of one's body, even though these two influences are not necessarily related to one another.

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D-116d

RACIAL/ETHNIC DISPARITIES IN OBESITY AMONG MINORITY ADOLESCENTS MAY EXIST INDEPENDENTLY OF SOCIOECONOMIC FACTORS

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Past research has documented racial/ethnic disparities in obesity among adolescents that place non-Hispanic African American and Hispanic youth at higher risk than their non-Hispanic white counterparts. While many of these studies attribute differences in weight status to socioeconomic factors, there is a dearth of information that examines risk for adolescent obesity within income and educational strata. Using a stratified design, this research examined whether racial/ethnic disparities in obesity risk in adolescents can be attributed to family socioeconomic factors.

A multi-site study enrolled 4,186 children from one of the three major racial/ethnic groups in the U.S. (Hispanic = 38%, African American = 36%, White = 26%). Measurements of body mass index (BMI) were taken in 5th and 7th grades. Parents provided demographic information on the household.

Complex sampling analysis revealed marked disparities in obesity among racial/ethnic minority children. When stratified by income, obesity rates of the least obese non-Hispanic African American and Hispanic 5th graders exceeded those of the most obese non-Hispanic white 5th graders, independent of household income strata. Likewise, obesity rates of the least obese Hispanic 7th graders exceeded those of the most obese non-Hispanic white 7th graders, independent of household income strata. When stratified by caregiver education level, obesity rates of the least obese non-Hispanic African American 5th and 7th graders exceeded those of the most obese non-Hispanic white children 5th and 7th graders respectively, independent of caregiver education level.

These findings suggest that there are striking racial/ethnic disparities in adolescent obesity that exist independently of household income and education, and provide basis for further exploration of the relationship between family socioeconomic factors and obesity in children.

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D-116e

PROJECT MENTOR: MENTOR-LED EXERCISE WITH OBESE ADOLESCENTS

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Rising rates of childhood obesity necessitate interventions that result in long-term impact. MENTOR aims to facilitate healthy lifestyles through college student mentors. Mentor/mentee pairs met 3 times per week to facilitate exercise based on CARE (competence, autonomy, relatedness and enjoyment from self-determination theory), weekly lessons and goal-setting. The current study examined MENTOR's impact on BMI Z-scores and percent (%) body fat. Obese female (n = 12) and male (n = 12) adolescents including Caucasian (n = 12) and African American (n = 10) participants were randomly assigned to a 14-week intervention or waitlist control. Initial BMI Z-score of 22 completers was 2.17 (SD = 0.43) and % body fat was 43.36 (SD = 6.17). Five additional adolescents (BMI Z-score M = 2.15, SD = 0.37; % fat M = 42.04, SD = 6.29) completed a 22-week version. Both interventions included a 16-week no contact follow-up. All were assessed at baseline, 14 weeks and follow-up. 3(group) X 3(time) repeated measures ANOVAs revealed nonsignificant time by group interactions, F(4,48) = 1.92, p = .12 and F(4,46) = 1.41, p = .25 for BMI Z-score and % body fat. Effect sizes at 14 weeks and follow-up revealed minimal change in the control group's BMI Z-score (Cohen's d = .11 and .05) and % body fat (d = .01 and .03); yet both intervention groups made small improvements in BMI-Z score (d = .23 and 0.30). The 14-week intervention group did not maintain change at follow-up (d = .04); yet the 22-week intervention group continued to improve, resulting in a moderate effect (d = .62). The 14-week intervention group also showed a small improvement in body fat % at 14 weeks (d = 0.23) that was not maintained (d = .04). However, the 22-week intervention group showed a moderate effect on % body fat across time points (d = .63 and .56). Findings suggest that longer treatment may yield more initial and sustained improvement in BMI Z-score and % body fat. Future research should include larger samples and longer trials to better understand the impact of MENTOR on pediatric obesity.

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D-116f

GENDER, AGE, AND BMI DIFFERENCES IN FOOD LOGO IDENTIFICATION AND RESPONSE TIME AMONG YOUTH

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Purpose: The increasing rate of obesity in children and adolescents in the US parallels surges in food marketing with youth exposed to over 5000 food commercials annually. The current study examined youth responses to differing types of food logos.

Methods: As part of a validation study, 27 participants aged 9-17 (M = 11.4 years, SD = 2.2, males = 40.7%) were asked to name and rate 115 food and 124 non-food logos on familiarity, valence, and arousal. Response times were recorded by Eprime. Twenty-seven percent of participants were healthy weight (BMI-percentile-for-age < 85th), while 73% were obese (≥95th percentile). A difference score was calculated (healthy food logo recognition minus junk food recognition) as determined by Arredondo et al. (2009).

Results: Results from an independent t-test indicated that females had statistically significantly higher rates of junk food logo identification (M=14.79, SD=9.125) compared to males (M=8.50, SD=5.704), (t(25)=2.208 p=.04, 95% CI [.423,12.149]). There was a significant positive correlation (Pearson) between age and restaurant logo identification (r = .438, p = .022), and junk food logo identification (r = .502, p=.008). BMI percentile was positively correlated with the difference score (r = .406, p = .040) and negatively correlated with response times on valence of food logos (r = -.595, p = .003), and arousal ratings for food logos (r = -.423, p = .044).

Conclusion: Preliminary results indicated that adolescent females recognize more food logos than males; with age, youth are able to identify more food logos. Increases in BMI are associated with increased identification of junk food versus healthy food logos. Obese youth rate happiness and interest of food logos with faster reaction times than healthy weight kids. Future studies should recruit larger samples to further explore the effect of branding on children of a wider age and socio-economic range.

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D-116g

CONCERNS ABOUT A DIGITAL-DIVIDE MAY BE OVERSTATED: USABILITY FINDINGS FROM A SMARTPHONE-BASED WEIGHT LOSS PROGRAM

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The recent proliferation of smartphones has given clinicians a new platform to deliver scalable, cost-effective interventions. The Nielsen Company has reported, however, that only 40% of mobile phone users have a smartphone. A digital-divide barrier may limit the efficacy of smartphone-based interventions among those low in technological literacy.

We explored this issue within the context of a smartphone-based weight loss study. Our sample (n=30) was 60% female, 26.7% White, had mean age of 40.5 years (SD=11.9), and a BMI of 34.0 kg/m2 (SD=3.6). Participants were assessed for technological literacy and previous smartphone use, but neither was an inclusion/exclusion criterion. They were given a smartphone equipped with our weight loss app and trained (< 1 hour) on its use. For one week participants recorded their food intake after every meal, daily physical activity, and weight (every morning). Post-intervention, participants were assessed on technology acceptance, usability, and habituation.

No significant associations were observed between adherence to the intervention (as measured by proportion of daily food entries) and technological literacy r(28) = -.030 or prior smartphone use r(28) = .137. Separate MANOVAs were run to estimate the effects of age, education, income, race, and sex on technology acceptance, usability, and habituation. Two significant main effects were found; age predicted habituation to the technology F(1, 27) = 5.248, p = .030 and education predicted technology acceptance F(1, 27) = 4.566, p = .042. The effects were not in the direction expected; older participants habituated more to the technology and less educated participants were more accepting of it. No other demographic factors predicted technology acceptance, usability, or habituation.

We conclude that with brief training (<1 hour), technological literacy and previous smartphone use need not preclude individuals from a smartphone-based intervention. Also, we found no support for assertions that smartphone-based studies discriminate against vulnerable populations.

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D-116h

FATNESS, FITNESS, AND EXECUTIVE FUNCTION AMONG OVERWEIGHT CHILDREN

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Childhood overweight and inactivity may be causing decrements in cognitive function, specifically in executive function (self-control, inhibition) in today's children. The current study examined cross-sectional associations of fatness and fitness with cognitive measures among overweight and obese children.

Method: Overweight and obese (BMI-for-age >=85th percentile, M = 97 ± 4, N = 175) children age 8-11 (9.7 ± 0.9, 61% girls, 87% Black) provided measures of adiposity (BMI, BMI z-score, waist girth, % body fat via DXA), aerobic fitness (PACER, VO2 peak), and psychological assessments of cognition (Tower of London), achievement (Woodcock-Johnson Tests of Achievement III) and teacher ratings (BRIEF) at baseline for an ongoing clinical trial (HL 87923).

Results: Reading and math achievement were inversely related to BMI and waist circumference (rs -.18 to -.23, ps < .05). Aerobic fitness (PACER) was negatively related with teacher ratings (BRIEF Behavioral Regulation Index, r=-.16, Metacognition Index, r = -.16, Global Executive Composite, r = -.17, all p < .05). Tower of London initiation time standard scores were surprisingly inversely related to fitness measures (rs -.16, -.20, ps < .05).

Conclusions: These preliminary results are mostly consistent with prior studies, indicating that leaner, fitter children showed an advantage in executive function. The consistent inverse relation of TOL initiation time standard score with fitness might indicate that a shorter initiation time reflects quicker and more efficient, rather than poorer, executive function.

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D-116i

DO ROMANTIC PARTNERS' DIET AND ACTIVITY BEHAVIORS IMPACT EACH OTHER'S WEIGHT LOSS? RESULTS FROM A COUPLES WEIGHT LOSS INTERVENTION

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Background: Including romantic partners in weight loss treatment has potential to harness social networks for weight loss; however, limited research has evaluated if and how each partner's diet and activity behaviors impact the other's weight loss or whether weight loss is better predicted by one's own behaviors. Methods: Heterosexual couples (N=132 couples; 93% Caucasian; M age=51 years; M BMI=34.2) were enrolled in a larger 18-month home-based weight loss trial. Spouses completed measures of dietary intake and physical activity at study entry and at 6 months. To examine whether partners' behaviors influenced each others' weight loss, we conducted dyadic data analyses using the Actor-Partner Interdependence Model. Results: The greater amount of TV participants and partners watched at study entry predicted greater percent weight loss reciprocally and individually at 6 months (p<0.05). No other baseline diet or activity behaviors reciprocally or individually predicted 6-month weight loss. Each partner's individual levels of caloric intake and percent fat intake at 6 months predicted their own 6-month weight loss (p<0.05); partners' caloric and fat intake at 6 months did not affect one another's 6-month weight loss. No 6-month measures of physical activity or sedentary behavior predicted individual or reciprocal 6-month weight loss. Conclusions: Romantic partners' preexisting sedentary behaviors can influence their own and each others' weight loss success in an intervention, whereas individual dietary behaviors during an intervention primarily impact one's own weight loss outcomes. This research provides evidence that for certain behaviors, behavior change may be more likely to occur when both members of a couple are involved.

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D-116j

CREATING PEER SUPPORT AMONG ADOLESCENTS IN A WEIGHT LOSS CONTEXT USING SOCIAL NETWORKING

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Background. Peer support (PS) has been shown to impact diet and physical activity among adolescents, yet whether it impacts weight loss (WL) remains largely unexplored.

Objective. To explore modes, methods and strategies used to foster PS in a pilot study, and to test the effects of skills training in a 16-wk RCT WL intervention on feasibility, satisfaction, adherence, and perceived support among a group of overweight adolescent females.

Methods. In the pilot study, 6 females participated in a 4-wk healthy eating program to test PS skills training using phone and online social networking. In the RCT, 41 females (age: 15.2 yrs, BMI=34.6, 58.5% white) were randomized to a cognitive-behavioral WL intervention (CB) or a CB WL intervention plus peer support (CB+PS). Participants in the CB+PS group were taught and practiced PS skills in the group sessions; which were used in-between sessions to support one another using Facebook.

Results. In the pilot, adolescents preferred social networking to phone support from program peers. Friend support increased over 4 wks. In the WL RCT, participants in the CB+PS group experienced greater levels of friend support at 16 wks (15.1 ± 6.2 vs CB:9.2 ± 4.7; p=.00). Adherence to the social networking PS component was low (4.3±4.0 of 13 chats; 11.8±11.0 of 45 check-ins). Participants in the CB+PS group reported moderate enjoyment of the Facebook component. Over 66% would have preferred text messaging. Enjoyment of the Facebook component was not associated with participation in it: r= .506, p = .51.

Discussion. Findings from the pilot and RCT highlight the process of creating support for healthy eating and exercise among adolescent females, and on the impact of PS on WL in an intervention. Future research on PS in WL interventions and its use outside of group sessions is needed to understand how much support is needed and the best medium in which to create it.

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D-134a

MALE HPV VACCINE ACCEPTANCE IS ENHANCED BY A BRIEF INTERVENTION THAT EMPHASIZES BOTH MALE SPECIFIC VACCINE BENEFITS AND ALTRUISTIC MOTIVES

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Although the HPV vaccine is now approved and recommended for men, research is needed to identify factors that influence men's willingness to take the vaccine. Male vaccination provides health protection to recipients and female health protection by minimizing HPV transmission. Accordingly, this study tested the hypothesis that vaccine acceptance would be enhanced by a brief intervention that emphasizes both altruistic motives (female health protection) and personal (male specific) health benefits. Male participants (N= 200; M age= 19.3; 31% Non-White) completed a pre-intervention survey to assess background characteristics, after which they viewed a brief, computer-administered intervention on HPV and the vaccine. To clarify the importance of male specific health benefits and altruistic vaccination motives, participants were randomized to an intervention that varied in the extent to which male specific benefits were stressed and in whether the intervention activated altruistic motives. Vaccine acceptance was assessed using a 7 item scale (e.g., "How likely is it that you will get the HPV vaccine if a health care provider offers it to you within the next year?"; α= .91). Although 76% reported knowing little about HPV at baseline, participants expressed moderate interest in receiving the vaccine post intervention (M= 3.2 on 5-point Likert scale, SD= 1.0). Vaccine acceptance did not vary by age, ethnicity, or lifetime sexual activity status (ps > .05). Participants who received the intervention emphasizing both altruistic motives and male specific information endorsed greater vaccine acceptance (M= 3.6, SD= 1.0, p < .05) in comparison to the other conditions. Vaccine acceptance did not differ among participants in the conditions emphasizing male specific health benefits only (M= 3.1, SD=1.1), altruistic motives only (M= 3.1, SD=1.0), or the control intervention that included basic vaccine information (M= 3.0, SD= .94). Findings confirm that male HPV vaccine acceptance is enhanced by promoting both male specific health benefits and altruistic motives.

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D-134b

ETHICAL ISSUES IN HUMAN ORGAN DONATION: IS ETHNICITY A FACTOR?

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A shortage of organ donors represents a substantial societal and clinical problem. In the U.S., organ shortage is especially a concern for Hispanics, who remain the largest growing segment of the population. Research has shown that attitudes and behavior regarding organ donation can be amenable to objective and informative interventions. The effectiveness of short-term expedient interventions have not been empirically assessed. A film was created to expose current trends in organ donation and to present contrasting viewpoints in a non-directive manner. We evaluated the effect of this intervention on attitudes about five controversial ethical practices. Participants were recruited from public and private organizations, across New York City, New Jersey, and Pennsylvania. Three hundred and twenty one (N= 321) subjects were enrolled; 32% self-identified as Hispanic, Non-Hispanic blacks and Non-Hispanic whites were equally represented (27%). A 20-item self-report measure was used to assess baseline and post-intervention beliefs. The instrument was comprised of two scales: beliefs about whether controversial organ donation practices are a human rights issue (Human Rights) and personal support for each practice (Personal Support). The intervention consisted of a 15-minute mock discussion between two individuals who used colloquial languages to discuss ethical and human rights dilemmas concerning organ donation. A significant increase in the Personal Support total scale score (M= 1.94, SD= 6.50 p< .05) was observed at the post assessment. Furthermore, overall personal support for donation practices increased among Hispanic participants at the post-test t (71) = 2.12, p = .04. Results indicate that personal support for controversial organ donations practices is amenable to a brief intervention. Beliefs about practices as a human rights issue appear less susceptible to a generalized intervention. Several social and demographic factors may influence attitudes. Future interventions should be catered to specific cultural and social variables germane to each group.

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D-134c

DOES INFLAMMATION MEDIATE THE RELATIONSHIP OF ANXIETY AND DEPRESSION WITH COPD SYMPTOMS?

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Although up-regulation of interleukin-6 (IL6) and high sensitivity C-reactive protein (hsCRP) are common to both chronic obstructive pulmonary disease (COPD) and elevated symptoms of anxiety (ANX) and depression (DEP), the link between inflammation and ANX and DEP among COPD patients has not been established. This study examined the relationship between ANX and DEP and COPD symptoms, including fatigue (BFI), shortness of breath (SOBQ), and frequency of COPD symptoms (e.g., coughing; SGRQ-Symptoms), and considered IL6 and hsCRP as possible mediators of these associations. The sample consisted of 162 COPD patients (62% male, 90% White, age 67±8 & COPD duration 4±2 yrs). Separate hierarchical regression models were conducted predicting BFI, SOBQ, and SGRQ-Symptoms with ANX, DEP, and covariates. Higher ANX was associated with increased BFI (p<.001), SOBQ (p<.001), and SGRQ-Symptoms (p<.001). Higher DEP was also related to increased BFI (p<.001), SOBQ (p<.001), and SGRQ-Symptoms (p<.001). IL6/hsCRP did not mediate these relationships. However, there was a significant interaction between hsCRP and ANX (β=0.19,p<.025) and DEP (β=0.29,p<.025) in predicting increased BFI. A Bonferroni adjusted α'=.025 accommodated for Type I error. Higher hsCRP was associated with increased BFI among COPD patients with higher levels of ANX (b1=0.19,t(160)=2.15,p<.05) but not among patients with low ANX (b1=-.17, t(160)=-1.45,p=.15). Additionally, higher hsCRP was associated with increased BFI among COPD patients with higher DEP (b1=.26,t(160)=2.18,p<.05) but not among patients with low DEP (b1=-0.07,t(160)=-0.86,p=.39). These findings suggest that comorbid ANX and DEP are associated with increased fatigue, shortness of breath, and frequency of COPD symptoms. Analyses did not support the notion that inflammation mediates the relationship between ANX, DEP, and COPD symptoms. However, the current results suggest that symptoms of ANX or DEP moderate the relationship between increased hsCRP and increased fatigue in COPD patients.

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D-134d

STABILITY OF VOCATIONAL INTERESTS AFTER RECENT SPINAL CORD INJURY

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Holland's RIASEC model hypothesizes 6 personality and environmental types important in vocational choice (Realistic, Investigative, Artistic, Social, Enterprising, Conventional). Individuals seek environments consistent with their personality type, with incongruence leading to dissatisfaction and destructive interaction. Incongruence is resolved by seeking a similar environment. Spinal Cord Injury (SCI) results in loss of motor function that may limit ability to act upon interests. In the absence of interest change, individuals with SCI may have interest patterns incongruent with vocational activities they are able to do after SCI. Similar to the general population, vocational interests appear to be stable in SCI; however, interest stability shortly after SCI onset has not been assessed. This study tested stability of vocational interests among persons with recent SCI. Initial assessments were completed during inpatient rehabilitation (mean = 50 days after SCI onset) with follow-up measures obtained an average of 16 and 29 months post-injury. 135 participants completed the 1994 Strong Interest Inventory (SII) at all 3 assessments (mean age = 32.3 years, 79% male, 70% white). The SII contains General Occupational Theme (GOT) and Basic Interest Scale (BIS) subscales consistent with RIASEC. Participants were grouped into 3 age cohorts (<25, 25-39, >40) to test stability of interests among cohorts. Comparison of scale means across 3 time points indicated significant changes in 2 of 6 GOT (F's > 6.2, P's < .01) and 8 BIS (F's > 3.1, P's < .05). A linear trend indicating an increase in interests accounted for most relationships. An age by time interaction occurred with 1 GOT (F = 3.2, P < .05) and 3 BIS (F's > 2.7, P's < .05). Average stability coefficients were .61(GOT) and .59 (BIS), and were lower for the oldest cohort. Findings indicate interests are not static, but rather evolve with average increases on themes more compatible with limitations of SCI. Stability coefficients suggest interests are likely to change more than indicated in earlier studies.

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D-134e

"HUH?": EXAMINING CHILD AND CAREGIVER CONFUSION DUE TO PROVIDER JARGON USAGE

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Background. Provider jargon usage can be confusing to both children and their caregivers. Often, jargon words go unquestioned by patients and unexplained by providers even though they may be misunderstood, especially in pediatric populations. Our goals were to determine which types of jargon words were most likely to provoke confusion in children and caregivers and whether the jargon was explained by the provider.

Methods. Children ages 8-16 with asthma (n=296) were recruited at 5 pediatric practices in North Carolina. Children's medical visits were audio-tape recorded and transcribed. Instances of provider, child, and the child's caregiver speaking were assessed for each

visit by two independent coders. A list of asthma related jargon words used by providers was established from the transcripts and divided into six term categories (asthma devices, asthma medicine names, asthma disease process, asthma tests, asthma medication related, and general asthma). Provider usage of these jargon words during visits was noted. Children's and caregiver's expressions of confusion, defined as instances where a patient or parent verbally expressed non-understanding of an asthma jargon word, were also recorded. For each instance of confusion, whether a provider explained the jargon term to the child or caregiver was also coded.

Results. Of the 6028 instances of provider jargon usage, 45 instances of confusion were expressed. Both children and caregivers expressed the most confusion over names of asthma medicines. Of the 19 times confusion was expressed by children, 5 were followed by an explanation term by the provider (26%). Of the 26 times confusion was expressed by caregivers, 13 were explained by the provider (50%).

Conclusion. Parents are more likely than children to express confusion of asthma related jargon words to providers. Providers are also more likely to explain jargon words to parents than to children when asked. Confusion expressed by either parent or child was rare but agreement to providers with "okays" was extremely common and could have been used to mask confusion.

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D-134f

USING NON-CONSCIOUS PRIMING TO ALTER SNACK CHOICE

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Unhealthy food choices are one of the primary factors thought to be responsible for the widespread declines in general health and increased rates of diabetes and other chronic illnesses occurring in many parts of the world, including the U.S. Greater insight into the processes that allow individuals to achieve healthier diets is needed. In two experiments, we examined whether non-consciously priming different aspects of individuals' health-related goals could affect food choice. Participants were randomly assigned to complete one of two types of word search puzzles, a manipulation commonly used in priming research. In the first experiment (n=89), the puzzles contained either healthy words (e.g. healthy, fit) or control words (e.g., desk, window). In the second experiment (n=78), puzzles contained unhealthy words (e.g., flabby, overweight) or control words. After completing the puzzle, participants were invited to select a snack from a box containing a mixture of relatively healthy (e.g., 100 calorie snack packs) and unhealthy (e.g., Dingdongs) snacks. Afterwards, participants completed some additional measures, including questions about goal commitment, and underwent a funneled debriefing. In both studies, puzzle type interacted with level of commitment to the goal of eating healthy to predict snack choice (p's =.04 and .03, respectively). In the first study, participants who were not highly committed to eating healthy were more likely to select a healthy snack after completing a healthy puzzle than a control puzzle, whereas the highly committed tended to always select the healthy snack regardless of puzzle type. However, in the second experiment, highly committed participants were more likely to select an unhealthy snack after the unhealthy puzzle, whereas the less highly committed tended to select the unhealthy snack regardless of puzzle type. The majority of participants did not believe the puzzle had affected their behavior, suggesting the impact of non-conscious goal activation on health behavior may depend upon level of commitment to the activated goal and which aspects of the goal are activated.

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D-134g

COMPARING THE EFFECTIVENESS OF INTERVENTIONS USING MEDIA TO THOSE THAT DO NOT: A META-META-ANALYSES

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The purpose of the study was to compare the efficacy of interventions that use media against more traditional interventions that involve counseling and small group interventions (interpersonal communication-based interventions) aimed at adults. Media included mass media, computer-based interventions, phones, and letters. We conducted a " meta-meta analysis" - a quantitative synthesis of meta-analysis in five health domain areas that had a sufficient number of meta-analyses of interventions using media to compare with a meta-meta analysis of traditional interventions conducted by Johnson, Scott-Sheldon, & Carey (2010). For HIV, interventions using computer/tailored approaches, media campaigns, and interpersonal approaches combined with "small" media (such as videos as flip charts) were better than interpersonal interventions without media. Interventions using letters or telephone calls were more effective than traditional interventions in promoting mammography. For smoking cessation, mobile phone interventions appear to be more efficacious than interpersonal interventions, which in turn are more efficacious than media campaigns. Traditional interpersonally-based interventions were better for alcohol interventions than mediated interventions using print, computers, or mass media. Interventions using media were more successful than either tailored or interpersonal approaches in promoting reduction in fat consumption or increase in fruit and vegetables. When selecting media to use in an intervention, it is important to consider the match between the goals and needed content/messages, affordances of each medium, and the population's communication habits and preferences.

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D-144a

OPIOID DOSE-RELATED OUTCOMES IN MULTIDISCIPLINARY CHRONIC PAIN TREATMENT

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There is a paucity of research exploring the effects of opioid analgesic use on interdisciplinary pain treatment outcomes, particularly regarding the opioid dose used by patients. The following study examined differences in treatment outcomes among veterans (n=221) who participated in a three-week, interdisciplinary, inpatient chronic pain rehabilitation program at a large southeastern Veterans Affairs medical center. All participants were titrated off their opioid medications following admission. The morphine-equivalent daily dose prescribed at admission was used to group participants into the following categories: 1mg-20mg (n=51), 21mg-50mg (n=83), 51mg-100mg (n=51), and over 100mg (n=36). The following measures were administered at admission and discharge: Pain Outcomes Questionnaire, Chronic Pain Coping Inventory, Coping Skills Questionnaire, and Sleep Problems Questionnaire. Baseline comparisons between dose categories revealed no significant differences on any dependent measures. Treatment-related changes were assessed by a series of repeated measures ANOVAs comparing baseline and discharge values on each outcomes variable. Results revealed a significant time effect for all measures, reflecting treatment-related improvements. Main effects were found for different dose categories, with participants taking over 100mg reporting increased sleep problems, participants taking 51mg-100mg reporting lower pain intensity, and participants taking1mg-20mg endorsing significantly better overall sleep. Additionally, there were significant dose X time interactions, with participants taking 51mg-100mg endorsing lower negative affect at discharge, and participants taking over 100mg reporting more sleep problems, worse overall sleep, less interference in activities of daily living, and less catastrophic thinking at discharge. The clinical implications of these findings will be discussed with an emphasis on future research.

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D-144b

THE IMPACT OF JUST WORLD BELIEFS ON PAIN EXPERIENCE FOLLOWING EXPERIMENTAL MANIPULATION OF INJUSTICE

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Recent research suggests that chronic pain patients often perceive themselves as victims of injustice and that belief in a just world may moderate this relationship. To examine possible mechanisms underlying these relationships, the current study examined the effect of an experimental manipulation of injustice on the pain experience of healthy individuals undergoing a cold pressor task (CPT). Healthy participants (n = 79, 39 male, 40 female) were characterized as being high or low on personal and general just world beliefs based on responses to the Personal and General Beliefs in a Just World Scale. All participants underwent two CPT immersions for a duration of one minute each. Participants randomly assigned to a Control condition were informed that the second immersion was a standard part of the experimental protocol; participants in an Injustice condition were told that they must repeat the immersion due to experimenter negligence. Participants reported their state affect and current pain experience immediately after each immersion using a visual analog scale. The experimental manipulation was successful as participants in the Injustice condition reported greater anger following but not prior to the experimental manipulation. Just world beliefs did not interact with changes in state affect. Participants with high general just world beliefs showed significant elevation in reported pain experience following the Injustice manipulation; this was not observed for participants with low general just world beliefs or for personal beliefs in a just world. Results suggest that general belief in a just world may comprise a vulnerability for elevated pain experience when individuals are challenged with an injustice manipulation within an acute pain context. The study is the first to examine the role of just world beliefs in experimental pain. Findings are discussed in terms of emerging research regarding the impact of perceptions of injustice and just world beliefs among chronic pain sufferers.

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D-144c

DAILY MOOD AND SPOUSAL RESPONSES INTERACT TO AFFECT SLEEP QUALITY AMONG KNEE ARTHRITIS PATIENTS

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Poor sleep quality is associated with symptom severity and pain-related disability among those with chronic pain. Although negative mood and intimate partners appear to influence sleep quality of healthy adults, few studies have examined these associations among arthritis patients or across days. We examined the unique effect of daily negative and positive mood on subjective sleep quality of knee arthritis patients (N=152) and whether daily spousal responses moderate this association. Patients (mean age 65.78 ± 9.99, and 58.6% female) and their spouses responded to questionnaires 3 times per day for 22 consecutive days. In addition to patients' self-reported mood and sleep quality, we assessed the degree to which spouses reported being punishing or solicitous toward their spouse. Controlling for patients' age, gender, BMI, education, daily pain, comorbidities, and use of sleep medication, multilevel modeling analyses showed main effects of daily negative mood on the same night's sleep quality ($\beta = -.01$, $p < .05$) and of positive mood on the degree to which sleep was perceived to be refreshing ($\beta = .03$, $p < .01$). Interactions between mood and solicitous responses were observed, such that higher solicitousness was associated with poorer sleep quality on the days patients reported lower positive mood compared to other days ($\beta = -.01$, $p < .05$) or, marginally, on days when they had higher negative mood ($\beta = .01$, $p = .06$) . In addition, on days when negative mood was high and patients experienced either solicitous or punishing responses more than usual, they reported less refreshing sleep ($\beta = -.03$, $p < .05$; $\beta = -.04$, $p = .05$). These results are the first to demonstrate that negative and positive mood fluctuations can interact with spousal behaviors to affect nightly subjective sleep quality among those with chronic pain. Findings expand our understanding of how emotional and social factors can dynamically affect health.

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D-144d

ADHERENCE TO THE VA/DOD CLINICAL PRACTICE GUIDELINE IN THE VETERANS HEALTH ADMINISTRATION: AN EXAMINATION OF METRICS RELEVANT TO BEHAVIORAL MEDICINE

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Background: In consultation with experts, we developed administrative-data based metrics to assess adherence to practices outlined in the 2010 VA/DoD CPG for Chronic Opioid Therapy across VHA facilities. Some metrics are highly relevant to behavioral medicine professionals, such as receipt of psychosocial treatments for pain and monitoring of those at risk for misuse (e.g., patients with substance use disorder (SUD) diagnoses not in remission).

Objectives: Examine adherence to CPGs for several domains relevant to behavioral medicine.

Design: We conducted secondary data analyses of the VHA administrative databases, which contain records for patients in 141 VHA health care systems. We included any VHA patients with an opioid prescription in fiscal year 2010.

Results: Guideline non-adherence was observed across VHA facilities but patterns differed between metrics. A greater number of patients with a long-acting (LA) opioid prescriptions (46%) received at least one encounter of psychosocial treatment/assessment, versus those with an acute, short-acting (SA) prescription (41%). Fewer patients with an LA opioid prescription who had an SUD diagnosis not in remission (32%) received specialty SUD treatment than those with an acute, versus those with an SA prescription (36%). Fewer patients with an LA opioid prescription and an SUD diagnosis not in remission had a urine drug screen (26%), versus patients with an acute, SA prescription (34%). Histograms reveal variations across facilities.

Conclusions: Currently facilities vary in their adherence to the CPG and intervention is required to improve the safe and effective prescribing of opioids for patients with chronic pain. Behavioral medicine professionals have the potential to play an influential role in this transformation.

Future Plans: Data from these metrics encourage a more focused approach to address facility level variance in the context of efforts to promote uptake of the recently published CPG. Quarterly data will guide initiatives to improve opioid safety and efficacy.

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D-144e

SUBLIMINALLY PRIMING RESISTANCE TO PAIN

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Guided imagery, in which patients envision relaxing experiences, can be effective in treating both acute and chronic pain. However, it requires the cessation of other activity, can be challenging to learn, and takes time to implement. The current study tested an intervention that circumvents these limitations - specifically, a subliminal priming procedure to activate the concept of relaxation (and the physiological and affective changes that accompany the experience of relaxation based on shifts toward parasympathetic tone) and thereby decrease participants' sensitivity to pain.

Healthy undergraduates (N = 71), screened for contraindicating medical conditions and painkiller use, participated in an ostensible test of sensory acuity. Participants first completed a baseline cold pressor test, continuously indicating the intensity of the pain they felt using the Faces Pain Scale. Intensity was recorded every five seconds. Participants then completed a computer-based categorization task, which they were told could reduce the pain they felt. Unbeknownst to them, during the task they were subliminally (20 ms) exposed to a set of either relaxing images (e.g., Zen gardens, beach scenes) or control images (abstract paintings). Last, participants completed a second cold pressor test, again indicating the intensity of the pain they felt.

During the second cold pressor test, participants primed with relaxing images experienced less subjective pain at 5 seconds post-immersion (mean difference = 1.01 on 11-point scale, $p = .04$, Cohen's $d = .55$, relative to baseline) than participants primed with control images. Parallel effects were present at 10 (mean difference = 1.78, $p < .01$, $d = .83$) and 15 (mean difference = 1.38, $p = .01$, $d = .71$) seconds.

These preliminary findings suggest that subliminal priming of relaxing images could be a promising intervention to ameliorate the subjective experience of pain, and ultimately could form the basis of an ecological momentary intervention.

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D-161a

STEP TO LIFE: A PILOT EXERCISE INTERVENTION IN COLON CANCER SURVIVORS UNDERGOING CHEMOTHERAPY

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Background: Physical activity has been associated with prolonged survival and lower rates of recurrence in colon cancer survivors. There is little information on the safety and feasibility of physical activity during adjuvant chemotherapy for colon cancer. Research has suggested that there is interest among cancer survivors in making lifestyle changes during active treatment and that face-to-face interventions are preferable.

Methods: This study evaluates the feasibility and safety of a pilot version of a 12-week randomized controlled trial of an exercise intervention focused on walking in colon cancer survivors on adjuvant chemotherapy. The study aimed to recruit 30 participants. Eligibility criteria included age >18; surgical resection of stage II or III colon cancer; started chemotherapy within the last month; physician consent to exercise; no previous diagnosis of familial polyposis syndromes, ulcerative colitis or Crohn's disease. Siteman Cancer Center (SCC) performs roughly 250 colon cancer resections per year and about half are treated with adjuvant chemotherapy. Recruitment primarily relied on oncologist referral to the trial. The study randomized participants to one of 3 arms: usual care and two arms that administered a 12 week walking program (30 min/day vs 60 min/day). Participants were followed for 26 weeks.

Results: Despite engagement with the surgeon and oncologists at SCC, only 15 patients were referred to study staff for eligibility determination between November 2009 and January 2011. Of these, 2 were not eligible and 10 declined to participate. The primary reason for declining the study was living too far from the medical center to return weekly for the four sessions required of the active intervention arms. 3 individuals consented to the trial and were enrolled and completed the study.

Discussion: Despite survey research indicating interest in lifestyle changes during cancer treatment, the study proved not feasible. Recruitment rates were slow and participants were not willing to travel to the cancer center on a weekly basis.

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D-161b

PHYSICAL ACTIVITY IS ASSOCIATED WITH A MORE FAVORABLE HEALTH-RELATED PROFILE IN ADULTS WITH ARTHRITIS

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Purpose: To examine relationships between moderate- to vigorous-intensity physical activity (MVPA) and physical functioning, quality of life-related variables (arthritis symptoms, QOL, depressive symptoms), dietary habits, and body mass index (BMI) in adults with arthritis.

Methods: Adults (N=401) not meeting MVPA recommendations at screening who had self-reported doctor-diagnosed arthritis were recruited from greater Columbia, SC. MVPA was measured with the CHAMPS PA Questionnaire. Validated self-report measures of arthritis symptoms (pain, fatigue, stiffness), depressive symptoms, QOL (physical health, mental health, limitations), disability, fruit and vegetable intake, and fat- and fiber-related behaviors were also administered. Gait speed, 6-minute walk test, grip strength, chair stands, and seated reach were assessed. Body mass index (BMI) was computed from measured height and weight. After examining zero-order correlations, regression models tested independent associations between MVPA and each of these variables.

Results: Participants averaged 56±11 years of age with a BMI of 33±8. Most were white (63%), with 35% African American and 2% all other races, and had attended at least some college (87%). In zero-order correlations, MVPA was associated ($p<.05$) with more favorable scores on every variable examined, although two did not reach statistical significance: grip strength ($p=.15$) and stiffness ($p=.06$). After controlling for sociodemographic variables and self-rated health, chair stands, seated reach, gait velocity, 6-min walk distance, disability, and QOL (physical health) remained independently associated with MVPA ($p<.05$).

Conclusion: Even in an insufficiently active sample recruited for an intervention, MVPA level was associated with more favorable health profiles, underscoring the importance of physical activity among adults with arthritis.

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D-161c

THE EFFECTS OF A WORKSITE OBESITY PREVENTION PROGRAM ON STAIR USE: IT WORKS, BUT CAN IT LAST?

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Because of the many benefits of physical activity (PA) and relatively low rates of individuals who engage in routine PA, public health professionals continue to seek effective strategies and interventions to increase PA. Increasingly, interventions have focused on targeting low-intensity PA, such as walking or stair usage, which may be engaged in more often and in various settings, such as the workplace. The present study is a stairwell intervention that was a part of a multi-component 12-month worksite obesity prevention study that targeted both physical activity and eating behaviors of employees in a healthcare setting. Following a pre-intervention baseline period, the first phase of the program, based on principles of energy balance, was initiated. This included an informational campaign, pedometer distribution, and nutrition labeling of all foods in the worksite cafeteria and vending machines. In the second phase, motivational signs and prompts were placed in the stairwells and above the entryways. Subsequent phases involved placing motivational signs near the elevator point-of-decision, in break rooms, and elevators. Observers located at the point-of-decision near the elevator and stairwell entries observed over four discrete one week periods a total of 4,161 observations. There was a significant effect ($p = .002$) for the stairwell intervention with use increasing from a rather high baseline level of 76% to 80%, 84%, and 77% at the three subsequent intervention phases. Notably, a significant intervention by sex interaction ($p = .001$) was found, which revealed that males appeared to increase in use (3-4%) and sustain the change over the year whereas females initially had greater gains (8-11%) but did not sustain these at the final observation. The findings show that stairwell prompts and motivational signs may promote stair use, though sustaining such use long-term may be challenging and requires additional investigation into identifying strategies for those at increased risk of discontinuing.

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D-161d

USING TWO PROBLEM-SOLVING FRAMEWORKS TO EXAMINE EXERCISE SELF-REGULATION BELIEFS AMONG CARDIAC REHABILITATION INITIATES

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Adjustment is a key aspect of self-management, successful adherence to health behaviors, and involves effective problem-solving (PS). Two frameworks which examine PS offer insight. Social Cognitive Theory proposes that self-regulatory efficacy (SRE) is related to PS approach (PSA), a state phenomenon. The Model of Social PS posits that PS effectiveness (PSE) is related to better outcomes in the face of a problem, a trait phenomenon. Our purpose was to examine these theoretical relationships among individuals required to self-manage exercise-related problems as part of disease management. Specifically, we were interested in the relationships between 1) PSA and social cognitions known to be related to exercise adherence, and 2) PSE and cognitions including self-efficacy for PS (SEPS) and persistence with PS. We hypothesized: Baseline (BLSRE) would predict PSA; PSE would predict a) SRE for cardiac rehabilitation (CR); b) persistence with CR; c) SEPS; d) persistence with PS. CR initiates ($N = 34$) first completed measures of BLSRE and PSE, read a pre-tested vignette about a relevant problem requiring adjustment for successful adherence to CR exercise, then completed measures of PSA, SRE for CR, persistence with CR, SEPS, and persistence for PS. Regressions indicated BLSRE was related to PSA ($R2adj = .12$, $p < .05$); PSE was related to SEPS ($R2adj = .34$, $p < .001$) and persistence with PS ($R2adj = .23$, $p < .01$). Results support the predicted relationship of SRE to state problem-solving approach (PSA) as well as the relation of trait PSE to self-efficacy for and persistence to problem-solving relevant to CR exercise. This is the first demonstration of such relationships in a rehabilitation sample engaged in exercise therapy. Possible implications for readiness for either change or adjustment among individuals attempting to adhere to PA rehabilitation will be discussed.

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D-161e

DOSE-RESPONSE OF PHYSICAL ACTIVITY INTENSITY ON BEHAVIORAL AND ATTENTIONAL OUTCOMES IN THE INTERVENTION CONTEXT

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Fewer than half of US children are meeting the physical activity (PA) recommendations. Lack of PA is tied to negative health outcomes typically occurring only in adults; and are now being diagnosed in children (i.e., type 2 diabetes, elevated blood pressure, low HDL cholesterol, and metabolic syndrome).

Strategies to reduce lack of (PA) among children include targeting extended periods of inactive time (i.e., weekdays at school) (e.g., disrupting sitting time) and implementing modified classroom lessons that incorporate PA. Potential benefits include, 1) increase PA, 2) decrease physical inactivity, and 3) behavioral improvements resultant of acute PA. The current study examined the dose of PA necessary to elicit behavioral improvements (attentional focus and engagement) and the effect of task enjoyment re: academic engagement among children during a typical school day. Participants (Ps) were 320 children (7-9 yrs). Ps were assigned by classroom (n=20) to one of four conditions: 1) inactive, control lesson; 2) inactive, enjoyable lesson; 3) low to moderate intensity PA (LMPA), enjoyable lesson; and 4) moderate to vigorous intensity PA (MVPA), enjoyable lesson. Measures included PA via accelerometer; and task engagement (as percent of time spent attending to task (TOT) from pre- to post-lesson) via direct observation.

Mixed-method RMANOVA indicated TOT decreased following the control lesson ($p < 0.001$), showed no change following the control game condition ($p = 0.68$), and increased following the LMPA ($p < 0.01$) and MVPA ($p < 0.001$) conditions. While task enjoyment prevented the reduction in engagement observed over a 45 minute period, increasing intensities of PA resulted in greater increases in engagement. Next steps include specifically designing PA interventions to focus on incorporating moderate to vigorous intensity levels of PA to elicit both short- and long-term benefits, yielding a greater appeal of compliance to those implementing them.

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D-161f

PARTICIPANT SATISFACTION WITH ON-LINE PHYSICAL ACTIVITY PROGRAMS: WHEN IT COMES TO PROGRAM DESIGN, WHERE SHOULD WE FOCUS OUR EFFORTS?

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Objective: To qualitatively examine opinions of participants after completing a 16-week physical activity and healthy lifestyle program delivered via print and online materials (Active Living Every Day© (ALED)).

Method: A focus group was conducted with 19 participants (75% female) who had completed a behavioral physical activity program. The program was a 16-week RCT with control and intervention groups. Treatment modality included a pedometer, the ALED program manual, and the ALED website which allowed participant self-monitoring. Participants in the intervention group were also randomized to receive either pre-set, or create self-directed step goals. Participants completed cardiometabolic health testing at baseline, and after program completion. While involvement in the focus group was voluntary, 59% of the participants attended. Focus group data were transcribed verbatim and grouped into thematic units using content analysis.

Results: Participants consistently identified factors that increased their satisfaction with the program, including: cardiometabolic testing and feedback, use of a pedometer, inclusion of co-workers, and ability to control and modify step goals. Participants varied in their opinions about whether the on-line ALED website was helpful or a barrier to participation. Additionally, participants suggested ways to improve future studies by increasing interventionist contact and including activities designed to foster social interaction between group members.

Conclusions: This study offers insight into participant views regarding factors that influence participant satisfaction in behavioral physical activity programs. Our data suggests that core components of a successful on-line physical activity intervention would include the integration of a pedometer as a monitoring and goal-setting tool, increased social support, and inclusion of attainable, individualized, participant-set goals.

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D-161g

INCREASING PHYSICAL ACTIVITY IN FREE-LIVING CONDITIONS: EXAMINATION OF THE KOHLER MOTIVATION GAIN EFFECT

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Purpose: The purpose of this study was to examine the efficacy of group dynamics principles of motivation in increasing physical activity under free-living conditions.

Background: The Kohler effect occurs when an individual performs better in the presence of a superior partner than they would individually. Prior research suggests that this effect is strongest in the presence of a moderately more capable partner under conjunctive task conditions. Conjunctive conditions are those in which a group's performance is defined by the performance of its least capable member. Although previous research has shown that the Kohler effect can be harnessed to increase motivation during exercise in laboratory conditions, it has not yet been tested in the field.

Method: This field experiment employed a 2 (gender) x 3 (condition: individual, coactive, conjunctive) experimental design. After a 1-week assessment of baseline physical activity (using Sensewear Armbands), participants were exposed to a brief orientation and learned safe strategies for increasing their physical activity. Participants were then randomly assigned to one of the three conditions. Their task was to increase their physical activity over a 7-week period. All subjects received weekly performance feedback on their energy expenditure. Participants in the partner conditions also received feedback on their partner's energy expenditure, which was manipulated to be always greater (40%) than their own.

Preliminary results: Participants in the partner conditions were more physically active than those who performed the task individually. Participants in the coactive condition maintained this level for longer than those in the conjunctive condition, but activity in both conditions dropped after Week 5, suggesting that physical activity partners may be a viable motivational strategy for roughly a 5-week period. Other implications and future directions will be discussed.

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D-161h

CHANGE IN STATE PHYSICAL EDUCATION LAWS AT THE ELEMENTARY, MIDDLE, AND HIGH SCHOOL LEVELS 2003 -2010

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Federal law requires states to address physical education (PE), and schools in states with relatively stronger PE laws have significantly more PE. However, enactment of PE-related laws across states has varied. To evaluate state-level PE policies that have been codified into law, the National Cancer Institute developed the Classification of Laws Associated with School Students (C.L.A.S.S.) scoring systems and associated database based on National Association of School Physical Education (NASPE) and Centers for Disease Control and Prevention (CDC) recommendations. This study empirically assessed changes over time in codified law affecting five domains of PE (Time, Staffing, Curriculum, Assessment of Health-Related Fitness, and Recess) affecting US schools at the elementary, middle, and high school levels. The stringency of PE laws for each state and the District of Columbia was determined from data in the C.L.A.S.S.-PE database (http://class.cancer.gov/). Non-parametric tests compared change in scores in the 5 PE policy areas. From 2003 to 2010, PE related laws significantly strengthened with respect to PE Time, Curriculum standards, and Assessment of Health Related Fitness across the elementary, middle, and high school grade levels (all p's < .05) and for Recess at the elementary level. However, while PE laws significantly strengthened on average in these policy areas, few states had law that met the NASPE/CDC standard at either the elementary, middle or high school level with respect to PE-Time (n's = 3, 3, & 1, respectively); curriculum standards (n's = 17, 18, & 16, respectively); Assessment of Health-Related Fitness Assessment requirements (n's = 2, 2, & 2, respectively) or for Recess (n = 1, elementary school level only). With respect to Staffing requirements for newly hired teachers, on average, C.L.A.S.S. rating did not significantly improve. These findings suggest while laws have significantly strengthened in most school PE policy areas, few states have strong laws that meet current recommendations for PE at any school level.

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D-161i

TYPE D PERSONALITY INDEPENDENTLY RELATES TO PHYSICAL ACTIVITY AMONG HEALTHY YOUNG ADULTS IN A U.S. SAMPLE

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Type D personality reflects a disposition toward distress (negative affectivity) and social inhibition, and it has been related to poor cardiovascular health outcomes, mostly in European adult clinical samples. We examined the utility of the Type D Scale (DS-14) in predicting physical activity (a general health risk factor) beyond the related constructs of negative affect, perceived stress, and social support in a healthy U.S. college sample. We examined 756 young adults [ages 18-25 years (M = 18.7, SD = 1.02); 59% female; 85% White]. Measures included the DS-14, NEO-PI Neuroticism Scale (NEO-PI-N), Perceived Stress Scale (PSS), Interpersonal Support Evaluation List-12 (ISEL), and the Houston Non-Exercise Questionnaire (HNEQ). The DS-14 correlated positively with the NEO-PI-N (r = .70) and the PSS (r = .55), and negatively with the ISEL (r = -.40) and the HNEQ (r = -.17) (p's < .001). We calculated two hierarchical linear regression models, with HNEQ scores regressed onto DS-14 scores before and then after controlling for NEO-PI-N, PSS, and ISEL scores, with participant sex controlled in each model. The DS-14 accounted for 2.6% of the variance when entered first (after sex; 3.7%). Entered last, the DS-14 accounted for .7% of the variance beyond that accounted for by NEO-PI-N, PSS, and ISEL scores (2.4%) and sex (p's < .05). With all variables entered, only sex (B = -.196) and the DS-14 (B = -.124) were significant predictors of physical activity (p's < .05). The DS-14 is related to negative affect/distress and social functioning in theoretically expected ways, and it uniquely explains a small amount of variance in physical activity. Considering these findings and the age and health of this sample, the type D construct might predict health behaviors more robustly with samples of varied ages and health status.

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D-161j

EXAMINING THE RELATIONS BETWEEN EXPECTED AND ACTUAL ENJOYMENT WITH INTENTION TO EXERCISE AMONG SEDENTARY AND ACTIVE INDIVIDUALS

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Recent evidence suggests that people expect to enjoy exercise less than they actually do (Ruby et al., 2011). Underestimating how enjoyable exercise will be is suspected to impede intentions to exercise, but it is unclear why expectations influence intentions and whether these relations differ for active and sedentary individuals. In this study, we examined whether (a) expected enjoyment predicted intentions to exercise, (b) actual enjoyment mediated the relation between expected enjoyment and intentions, and (c) these relations were moderated by current physical activity levels.

Prior to a 30-minute self-directed workout, sedentary (< 60 minutes of moderate-to-vigorous activity/week; N=19) and active (≥ 150 minutes of moderate-to-vigorous activity/week; N=24) young adults reported how much they expected to enjoy the workout (1: not at all; 10: very much). Afterwards, they rated how much they enjoyed the workout (same scale) and their intention to exercise over the next month. We used a moderated meditational model (MacKinnon, 2008) to address the study questions.

As expected, higher expected enjoyment predicted higher intention, (b=.440,F(38)=3.02,p=.01). In addition, activity level classification moderated the relationship between actual enjoyment and intention (b=.936,F(36)=3.494,p=.001), such that higher levels of enjoyment predicted higher intention for sedentary participants (b=.562, F(36)=3.207, p=.003), but not for active participants (b=-.374,F(36)=-1.945,p=.06). Actual enjoyment fully mediated the relationship between expected enjoyment and intention for sedentary participants (95%CI=.054,.666), accounting for 70.5% of relation between expected enjoyment and intention to exercise. However, actual enjoyment did not mediate the effect for the active participants (95% CI=-.079,.407). These findings suggest that actual enjoyment is a crucial component for continued exercise for sedentary people, whereas the exercise intentions of regular exercisers are driven by factors other than actual enjoyment. Theoretical and clinical implications will be discussed.

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D-161k

EXAMINING THE EFFECTS OF EXPERIENCES AND OPTIMISM ON PHYSICAL ACTIVITY OUTCOME EXPECTATIONS

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Empirical investigations of outcome expectations typically test whether expectations before initiating exercise predict future physical activity (PA) levels, but often ignore whether those expectations change after people initiate PA. The purpose of the current study was to examine whether (a) people's outcome expectations change after initiating regular PA as a function of their exercise experiences, and (b) dispositional optimism moderates that relation.

Sedentary adults (N=116, mean age: 34.4 [SD=12.31], mean BMI: 27.8 [SD=5.74], 73.9% female, 41.2% Caucasian) initiated a self-directed exercise regimen, and reported their positive (e.g., enjoying exercise) and negative (e.g., negative affect) experiences daily and outcome expectations for the same categories weekly for four weeks. Dispositional optimism (LOT-R: Scheier et al., 1994) was assessed at baseline. Using hierarchical linear regression, we examined average levels of the experiences aggregated over the week (between-person effects) and deviations from that average (within-person effects), their interaction with optimism, and weekly outcome expectations.

Controlling for the previous week's expectations and minutes of weekly PA, higher levels of positive and negative experiences (between-person) predicted increases in outcome expectations (ps<.05). Greater deviations from the average levels (within-person) predicted increases in outcome expectations (ps<.03) only for negative experiences. Dispositional optimism moderated the relation between within-person effects and changes in outcome expectations (ps<.03). For low optimism, increases in positive feelings resulted in higher outcome expectations (ps<.05). For high optimism, increases in negative experiences resulted in higher outcome expectations (ps<.01); furthermore, increases in positive feelings resulted in lower outcome expectations (ps<.05). The findings suggest that (a) people's outcome expectations change as a function of their experiences, and (b) dispositional optimism moderates that relation. Theoretical and clinical implications will be discussed.

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D-161l

RELATIONSHIP BETWEEN SOCIAL STRUCTURE AND PHYSICAL ACTIVITY PATTERNS ACROSS THE LIFESPAN

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There is unequivocal evidence that physical activity (PA) is strongly and causally associated with a variety of health benefits (Dishman et al., 2004); therefore, declines in PA represent a major public health concern. Across the lifespan, PA levels are highest during adolescence, but begin to erode as youths move toward adulthood (Kwan et al., 2012). While markers such as age, gender, and education have been established correlates of PA, few attempts have been made to understand the interactions between these markers of social structure as it relates to PA; and in particular across time. The purpose of this study was to use multilevel modeling to discern patterns of PA across a 16-year period, based on age, gender, education, income, and its interactions among a nationally-representative sample of Canadians 12-years and older (N = 12,851, nmales = 6084). Adjusting for baseline age, results found significant main effects for time (coefficient = -0.206, SE= 0.06, p<.001), time2 (coefficient = 0.289, SE= .09, p<.001), gender (coefficient = 0.145, SE= .04, p< .01), and education (coefficient = -0.114, SE= .03, p< .01). More interestingly, however, results found significant time by gender (coefficient = -0.082, SE= .01, p<.001), time by income (coefficient = 0.0297, SE= .01, p<.001), and a time2 by income (coefficient = -0.009, SE= .001, p<.001) interactions. In general, the findings indicate that PA declined in a non-linear pattern over the 16-year study period. Patterns across time differed on the basis of gender and income, with males and lower income-earners exhibiting steeper declines in PA. Interestingly, interactions between gender, income, and education across time were all non-significant. Overall, more effort is required to determine the reasons behind the declines in PA, in particular among males and lower-income earners. Such effort will be critical towards informing strategies for population-level interventions, aimed at targeting and attenuating physical activity declines.

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D-161m

DEVELOPMENTAL COORDINATION DISORDER, GENDER, & BODY WEIGHT: THE IMPACT OF PARTICIPATION IN ACTIVE PLAY

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Developmental coordination disorder (DCD) is a neurodevelopmental condition affecting approximately 5-6% of children (APA, 2000); resulting in significant impairments to daily living and recreational activities. Children with DCD tend to be less active than typically-developing children (Cairney et al. 2005); potentially a reason they are at a greater risk for being overweight or obese (Rivillis et al. 2011). The purpose was to examine whether differences in participation in active play (PAP) can account for gender differences in the relationship between DCD and body weight/fat. The current study was cross-sectional, utilizing a community sample of children in grades four to eight (N=590; Mage=11.46+1.45). Measures of physical activity, motor proficiency, body mass index (BMI) and body fat (%)

were obtained. Hierarchical regressions indicate a gender-specific pattern in the relationship between PAP, DCD, BMI and body fat. Specifically, significant results emerged for DCD by male (b=2.31-7.72, p's<.05) and DCD by male by PAP (b=1.50, p<.01) interactions. Findings suggest that among boys with DCD, greater participation in active play is associated with higher BMI and percentage body fat. For girls with the disorder, the opposite relationship is observed. Overall, PAP was found to moderate the association between DCD, gender and body weight. Albeit counter-intuitive, there may be some reasons why PAP is associated with higher BMI and percentage body fat in boys with DCD. First, there are certain advantages in the context of schoolyard games/play for boys large in stature, perhaps offsetting coordination difficulties as a barrier to participation; another reason may be that boys with DCD and above average BMI/body fat may be more likely to be physically active because their teachers and parents are encouraging participation in the hopes that greater activity may reduce their clumsiness and/or weight - the caveat being that the results could be a the product of a social desirability bias. Further work to explore reasons for these finding are warranted.

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D-166a

PERCEIVED EXERCISE BENEFITS AND BARRIERS AMONG PREGNANT WOMEN IN EARLY PREGNANCY

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Regular participation in moderate intensity exercise during pregnancy has been associated with physical and psychological benefits. Yet, among previously active women regular exercise participation declines during pregnancy, and among those who were inactive many are reluctant to initiate regular exercise during pregnancy. This study examined perceived benefits and barriers to exercise participation in women during pregnancy.Eighty-two pregnant women completed standardized questionnaires assessing exercise benefits and barriers, depressed mood, exercise self-efficacy, social support for exercise, and fatigue. Data were analyzed by frequency analysis, t-tests and two multivariate regression analyses to identify factors associated with exercise benefits and barriers. While more than half of the women (62.5%) had not been regular exercisers prior to pregnancy, our sample of pregnant women reported higher benefits from exercise than barriers, with a perceived benefit /barrier ratio of 1.54. Physical performance followed by psychological outlook and preventative health were reported as the greatest perceived benefits to exercise. Physical exertion was rated as the greatest barrier to exercise during pregnancy, followed by time expenditure. Higher self-efficacy for exercise contributed to higher total exercise benefits scores. Younger maternal age, lower exercise self-efficacy, higher depressed mood and less family support for exercise, were significant independent contributors to higher total exercise barriers scores.

The findings suggest that strategies designed to encourage exercise during pregnancy should focus on decreasing barriers related to physical exertion by adapting exercise intensity to pregnancy and to the woman's fitness level. Increasing self-efficacy for exercise, family support and highlighting the functional and emotional benefits associated with regular exercise participation may also help to modify exercise attitudes during pregnancy and promote greater participation.

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D-166b

MATERNAL PSYCHOSOCIAL ADAPTATION TO HIGH-RISK PREGNANCY, PRETERM LABOR, AND PRENATAL HOSPITALIZATION

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Objective: To identify emergent psychosocial themes of high-risk, hospitalized pregnant women.

Study Design: Qualitative phenomenological interview and repetitive inquiry to elicit narratives of maternal adaptation to high-risk status and hospitalization. Semi-structured interviews of forty-one (41) hospitalized, ethnically diverse high-risk pregnant women were conducted in private hospital rooms of a large southwestern U. S. university hospital. Interviews focused on seven dimensions of psychosocial adaptation to pregnancy and psychological factors specific to hospitalization. All interviews were audio-taped, transcribed, and followed by in-depth exploration of major recurrent themes.

Results: Five themes emerged from the data analysis: (1) Fears: maternal/fetal trauma and loss of life; (2) Early and pronounced initiation of parental protector role; (3) Enhanced couple responsiveness and parental collaboration; (4) Mother-daughter devotion mobilizes maternal coping and adaptation; and (5) Trust of medical and nursing care enhances maternal confidence.

Conlcusions: High-risk, hospitalized expectant women experience high fear, stress, and uncertainty about pregnancy outcomes, and a great sense of responsibility toward the fetus. High-risk pregnancy generated both couple and mother-daughter closeness and responsiveness that enabled gravidas to cope, achieve a sense of coherence, and reframe their responsibilities. Mothers who mobilized coping resources and social support expressed less difficulty with their high-risk pregnancy. Supportive care from the medical/nursing team further enhanced maternal adaptation. Military wives with partners who were deployed or had long-distance employment should be expected to need a greater network of support during and after hospitalization.

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D-166c

DIURNAL COURSE OF SALIVARY ALPHA-AMYLASE DURING PREGNANCY: ASSOCIATIONS WITH OBSTETRIC HISTORY, MATERNAL CHARACTERISTICS AND MOOD

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Diurnal patterns of salivary alpha-amylase (sAA) in pregnant women have not previously been described. The current study employed ecological momentary assessment to examine the association between diurnal sAA, obstetric history, maternal demographics, and mood over a period of 3 days during pregnancy. Saliva was self-collected at home by 83 pregnant women (89% White, age 25-43 years; mean gestation = 21.9 weeks; gravida 1-6). Multilevel equations were specified at three levels to account for the nested data structure (measurement moments nested within days and days nested within persons). Separate models were constructed to test the fixed effects of level-3 (person) variables (obstetric history, maternal age and anthropometrics, gestational age, fetal sex, and trait mood) and time-varying (level-1) variables (positive and negative mood). Results indicated strong diurnal change in sAA with levels decreasing rapidly after waking and then increasing over the remainder of the day. Current pregnancy and maternal demographics did not alter sAA levels. In contrast, a history of previous miscarriage (Parameter =-.17; SE =.05; p<.05) was associated with an atypical diurnal pattern. Even after accounting for obstetric history, trait anxiety (Parameter =.16; SE =.04; p<.001) was associated with increased sAA over the day while chronic levels of fatigue (Parameter =-.06; SE =.03; p<.05) were associated with decreased sAA. In a separate model, we also tested the time varying covariation of sAA and mood. The effects of momentary mood were in contrast to those for trait mood. Both momentary depression (Parameter =.22; SE =.09; p<.01) and positive mood (Parameter =.12; SE =.04; p<.001) were associated with momentary increases in sAA while momentary anxiety and fatigue were not related to sAA. The findings suggest that basal sAA during pregnancy is sensitive to emotional arousal. Evaluating diurnal patterns of sAA holds promise for advancing understanding of how emotional arousal during pregnancy may affect fetal development.

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D-172a

THE ROLE OF FEMININITY IDEOLOGIES, DISTRESS, AND SELF-EFFICACY ON PREVENTATIVE HPV-RELATED HEALTH BEHAVIORS AMONG YOUNG WOMEN

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Background. Persistent exposure to high-risk HPV types is the most important risk factor for developing serious pre-cancerous and cancerous lesions of the cervix, vulva, vagina, and anal region (CDC, 2007). Among college students, only 28% regularly use barrier method protection (CDC, 1997) and HPV vaccination rate is estimated to be 10% (CDC, 2008). We know much about demographic, behavioral, psychological, and interpersonal factors influencing risky sexual behaviors (Kirby, 2001). Missing, is an appreciation of how young women's lived experiences influence health decisions (Savin-Williams et al., 2004). This study examined the contribution of femininity ideologies (i.e., inauthenticity in relationships and body objectification), psychological distress, and self-efficacy to the likelihood of getting vaccinated, talking to sexual partner(s) about HPV, and regularly using barrier method protection. Research Design. Participants (N = 126) were recruited from introductory psychology classes; 87 met inclusion criteria. Participants ages were 18 to 52. Measures. Femininity ideology (AFIS; Tolman et al., 2006), distress (HSCL-25 ; Winokur et al.,1984), and decision-making self-efficacy (McLeod & Sherwin, 2000) were used. Intentions were measured on a Likert-type scale (1-5). Results. Regression analyses were performed with age and number of partners entered in Step 1, body objectification and inauthenticity in relationships entered in Step 2, and distress and self-efficacy entered in Step 3. Results indicated that distress was associated with vaccination intentions (β = .36, p = .004) and talking to partner (β = .30, p = .015). Body objectification was associated with talking to partner (β = -.26, p = .037) and age was associated with intentions to use barrier method protection (β = -.45, p = .000). Conclusion. Results lend support for the inclusion of femininity ideologies in existing decision-making models of preventative HPV-related health behaviors. Future Plans. Femininity ideologies may be useful for finding novel preventative interventions among young women.

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D-172b

IMPERSONAL IMPACT, PERCEIVED PERSONAL RISK AND OPTIMISTIC BIAS REGARDING SKIN CANCER

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Recent research has focused on the validity of skin cancer risk measures, and there have been calls for experimental work that examines optimistic bias (Janssen et al., 2011, Harris & Hahn, 2011). This analysis draws on a 2X4 factorial experiment in which Black (N=202) and White (N=202) adults read news articles that were either edited to provide: (1) no race-specific melanoma risk information; risk information for (2) a racial outgroup; (3) a racial ingroup; or (4) a comparative frame with both the ingroup and outgroup statistics. The analysis tested: whether the framing affected optimistic bias (i.e., ingroup risk minus personal risk); whether there were differences in risk perception based on race of the respondent; and the association between types of perceived risk and intentions to talk to a doctor about skin cancer screening and preventing skin cancer. Whites (M=1.20, SD=1.34) reported greater optimistic bias than Blacks (M=.57, SD=1.47), p<.001, but ANOVA results also showed framing effects (p=.04) and an interaction between race of respondent and frame condition (p=.04). Although there were racial differences for both personal (p=.001) and ingroup (p<.001) risk, there was no effect of framing on personal risk. There were framing (p<.001) and interaction effects (p=.003) for the ingroup risk component of the indirect optimistic bias measure. Personal and ingroup risk were positively associated with communication intentions for both Blacks and Whites (i.e., p<.05). Greater optimistic bias was significantly associated with lower communication intentions among Whites; it was not significantly correlated for Blacks. The findings suggest that in some cases when media messages include targeted or comparative risk information, it can have implications for optimistic bias measures among intervention sub-populations.

Differences in optimistic bias for skin cancer can emerge based how group risk is communicated, even when personal risk does not show evidence of change. Researchers should be aware of this when considering risk measures to assess interventions with diverse populations.

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D-172c

THE COST-EFFECTIVENESS OF BIENNIAL MAMMOGRAPHY SCREENING FOR LOW-INCOME HISPANIC WOMEN

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Background: Despite evidence on the effectiveness of mammograms, optimal screening patterns remain controversial. Effectiveness models rarely capture differences in health outcomes among subgroups and do not consider costs. Hispanic women tend to have more aggressive disease at younger ages and are more likely to die from the disease compared to non-Hispanic white women.

Objective: To determine the incremental cost-effectiveness ratio (ICER) of biennial mammograms from age 40-50 for Hispanic women compared to not screening.

Methods: We used a decision tree analysis model for a lifetime horizon to evaluate the costs and benefits of biennial mammography screening for low-income Hispanic women compared to not screening. We take a societal perspective, including direct and indirect costs. We used data from the literature, the national SEER registry, and the National Breast and Cervical Cancer Early Detection Program to inform model parameters for risks, probabilities, and costs. All model data are age-specific and race-specific. The ICER was calculated as the difference in the cost between the two interventions divided by the difference in savings in life-years. The effectiveness measure is a reduction in deaths from breast cancer or life-years gained (versus not screening). All values are discounted at a annual rate of 3%. We also conducted one-way sensitivity analyses to examine the robustness of the results for a range of assumptions.

Result: Low-income Hispanic patients who receive biennial mammography screening from age 40-50 are projected to have lower lifetime costs by $3,390 and a 49.8% reduction in mortality compared to the same subgroup of women who are not routinely screened for breast cancer. The ICER was -$4,114 per life-year saved for women screened biennially versus not screening.

Conclusion: Biennial mammograms for Hispanic women age 40-50 have the potential to save lives and are very likely to be cost-effective compared to not screening. Results from the study have implications to inform the USPSTF screening guidelines for Hispanic women.

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D-176a

ASSOCIATION AND INCREASED RISK OF DUAL SEXUALLY CONCURRENT PARTNERSHIPS AMONG A POPULATION OF LOW SES WOMEN IN THE SOUTHEAST

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Background: Sexual partner concurrency puts an individual at increased risk for STIs and adverse reproductive health outcomes. Having a main partner who also has other partners puts the individual at even greater risk. This information is critically important in the context of sexual network patterns in which both partners are known to be engaging in concurrency. African Americans suffer from higher rates of certain STIs and HIV than other groups. Certain characteristics of social and sexual networking patters may contribute more than an individual's actual risky sexual behavior, which places even low risk women at increased risk of infection. Purpose: To examine the association between a participant having concurrent sexual partnerships and the belief that her main sexual partner also has other concurrent sexual partnerships. Methods: Participants were assessed via ACASI, utilizing an internet-based questionnaire, as part of a larger survey related to sexual risk and the use of vaginal douche products. Results: Female participants (N= 319) were aged 14 to 25 years; 88% were African American, 41% had completed some college, 71% were from low SES families and 73% had a main sex partner. Of the n=230 who admitted a main sex partner, nearly half (47.2%) admitted to engaging in concurrency since the beginning of her current main relationship. Slightly less (42.6%) believe their partner is also engaging in sexual concurrency. Bivariate analysis indicates a significant correlation (p=.000) between a participant engaging in concurrency and belief that her partner is also engaging in concurrency. Conclusions: Knowledge of a main partner having other concurrent sexual relationships may not be enough to reduce the likelihood of a continued sexual relationship, and may contribute to additional concurrency. Such findings may be related, in part to a lack of eligible male partners. Sexual networking patters, especially among this population, may contribute more risk than the individual's own sexual risk behavior.

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D-176b

IMPACT OF PREGNANCY AND CONDOM ATTITUDES ON YOUTHS' CONDOM USE

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Introduction: This study sought to determine whether young males' attitudes towards pregnancy and condoms had the same factor structure and predictive utility as those of their female peers in the domain of condom use.

Methods: 517 sexually active youth (203 males, 314 females, 86.2% African American) between the ages of 15 and 24 (M=19.3) completed a survey that assessed sexual attitudes and behaviors. The pregnancy attitudes scale was comprised of eight items, four positive and four negative (reverse coded). The condom attitudes scale was comprised of five items. Principal components analysis was utilized to determine the underlying factor structure of both scales. Logistic regressions were run to determine whether the resulting factors predicted condom use at last sexual intercourse when controlling for age, number of sexual partners, and previous pregnancies.

Results: The pregnancy attitudes of males were best characterized by a two-factor solution (positive and negative beliefs) that together explained 63.5% of the variance, whereas those of females were best characterized by a one-factor solution that explained 59.8% of the variance. Only females' pregnancy attitudes predicted condom use (OR=0.8). The condom attitudes of males were best characterized by a one-factor solution that explained 58.0% of the variance, and those of females were best characterized by a two-factor solution (experience and health beliefs) that together explained 69.3% of the variance. The single factor underlying males' condom attitudes did not predict condom use, and only the experience beliefs factor predicted condom use among females (OR=.05).

Conclusions: The pregnancy attitudes of males and females in this sample were structurally different and did not offer the same predictive utility regarding condom use at last sexual intercourse. Interventions seeking to increase condom use by promoting favorable condom attitudes may not be successful, but those that seek to decrease favorable pregnancy attitudes may increase condom use among young women.

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D-179a

EXAMINATION OF THE FACTOR STRUCTURE OF THE PITTSBURGH SLEEP QUALITY INDEX IN RHEUMATOID ARTHRITIS

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Recent studies have shown that greater than 50% of rheumatoid arthritis (RA) patients have significant sleep disturbance. This study examined the use of the Pittsburgh Sleep Quality Index (PSQI) in a sample of 106 RA patients from the greater Southern California area. While the PSQI was designed as a unidimensional scale, with a cutoff score of 5 indicating the presence of sleep disturbance, recent studies have found the PSQI to be multi-factorial in nature. Confirmatory factor analysis (CFA) was conducted using EQS 6.1 with the maximum likelihood method of estimation to evaluate three alternate models; (1) a single factor model, (2) a two-factor model comprised of sleep efficiency and sleep quality, and (3) a three-factor model comprised of sleep efficiency, sleep quality, and daytime disturbances. The single factor solution yielded a poor fit to the data, $\chi 2(9) = 21.65$, $p = .010$, $\chi 2/df = 2.41$, CFI = .913, RMSEA = .115, and thus was not supported in favor of the alternate models. Both the two-factor $\chi 2(8) = 4.00$, $p = .857$, $\chi 2/df = 0.50$, CFI = 1.00, RMSEA < .001, and three-factor $\chi 2(6) = 0.72$, $p = .994$, $\chi 2/df = 0.12$, CFI = 1.00, RMSEA < .001, models had excellent fit; however, the two-factor solution had higher factorial reliability and greater parsimony than the three-factor solution . The sleep quality factor was significantly correlated with self-reported disease activity (r=.24), depression, (r=.48), arthritis helplessness (r=.25), arthritis internality (r=-,24), SF-36 physical functioning (r=-.21), SF-36 emotional functioning (r=-.47), SF-36 vitality (r=-.61), and fatigue (r=.58). These findings support the use of the PSQI as a two-factor scale in RA with poor sleep quality reflecting poor clinical functioning in this population.

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D-191a

PSYCHOSOCIAL CHANGES IN COMMIT TO QUIT YMCA

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This secondary analysis examines changes in psychosocial variables collected from a randomized clinical trial investigating exercise as an adjunct to smoking cessation treatment in a community setting. Women were randomized to either a 12-week CBT smoking cessation (SC) program plus exercise (Exercise, n=166) or CBT CS plus a wellness contact control (Control, n=164). Increased physical activity was hypothesized to increase odds of quitting by reducing weight concerns and affective withdrawal symptoms. The Fagerstrom test for nicotine dependence, SC Self-Efficacy, Weight Concern Scale, PANAS , CES-D , Physical Activity (PA) Stage of Change, and PA Self-efficacy scales were completed at baseline and post-treatment at Week 12. No between-group differences in 7-day point prevalence abstinence at 12 weeks were found (29.5% vs. 29.9%). Using generalized linear models, we examined whether, (1) psychosocial constructs changed at week 12, (2) if changes in these constructs were associated with quitting at week 12 and (3) if these changes differed by treatment group. Results revealed decreases in nicotine dependence, weight concerns, PA self-efficacy and positive affect and increases in SC self-efficacy, negative affect, CES-D and PA stage of change (all p's<0.05) at week 12. Increases in weight concerns, CES-D, and negative affect were associated with reduced odds of quitting at 12 weeks (OR's<1, p's<0.05), whereas increases in SC self-efficacy, positive affect, and PA stage of change were associated with greater odds of quitting at 12 weeks (OR's>1, p's<0.05). Between group differences showed that those randomized to Exercise had less nicotine dependence, fewer weight concerns, and greater odds of increasing their PA stage of change (p's<0.05) at 12 weeks than Controls. Results suggest that odds of quitting smoking could be improved by minimizing increased negative affect, increasing smoking cessation self-efficacy, and advancing PA stage of change.

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D-191b

SMOKING AND BODY WEIGHT: RESULTS FROM THE NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY (1999-2006)

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Tobacco use and obesity are leading causes of death and disease in the U.S. In 2008, 20.6% of adults were current cigarette smokers and 33.8% were obese. Research has generally shown that current smokers tend to have a lower body mass index (BMI) than never and former smokers. A number of physiological mechanisms have been hypothesized to explain this pattern, but few studies have explored the possible role of behavioral factors, such as diet, physical activity (PA), and sedentary behavior (SB). Data from NHANES 1999-2006 were utilized to examine the associations between smoking status, diet, SB, PA, and BMI. Smoking status was defined as being a current, former or never smoker. SB and PA were measured through self-reports and accelerometer calibrated measurements. A food frequency questionnaire assessed diet. BMI was obtained through a physical exam. A multistage probability design was utilized in order to obtain a nationally representative sample of the U.S. population. BMI was greater in former (M=28.81, SE=.15) compared to never smokers (M=28.40, SE=.13; t=-2.85, p=.0060); and greater in never compared to current smokers (27.18, SE=.12; t=7.82, P<.0001). Self-reported SB was lower in never compared to former smokers (t=-8.88, p<.0001); and lower in former compared to current smokers (t=-3.89, p=.0003). A logistic regression analysis predicting obesity revealed that SB moderated the relationship between smoking status and BMI (F(4)=4.13, p=.0051). Self-reported moderate PA was greater in never compared to former smokers (t=2.00, p=.05) and greater in former compared to current smokers (t=6.16, p<.0001). Models to correct for measurement error will be presented and discussed. These analyses from a nationally-representative, cross-sectional dataset revealed several interesting findings regarding the interplay between smoking status, behavioral factors, and BMI. Results from this study demonstrate that behavioral factors likely play a role in the observed association between smoking status and weight. These findings have key implications for public health interventions.

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D-191c

PROJECT EXHALE: A SMOKING CESSATION PROGRAM FOR HIV+ MSM SMOKERS

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HIV infection is a leading cause of death in adults aged 35-44, with sexual contact between men being the primary mode of transmission. Among men who have sex with men (MSM), African Americans have the highest HIV incidence rates and tobacco use. HIV+ smokers have historically not been targeted for intervention due to poor disease prognosis. To address this disparity, study aims were to identify barriers and facilitators to smoking cessation and to develop a culturally targeted treatment program. Formative phases of the study included: conduct of focus groups with HIV+ smokers (N = 31 African American MSM); adaptation of the Courage to Quit smoking cessation program; and conduct of feedback focus groups (N = 18 participants). Participants were M = 41 yrs. of age and HIV+ for M = 12 yrs. The majority were daily smokers (71%), averaging 10 cigarettes per day. More than 60% of the sample had made a serious past quit attempt and half planned to quit in the next 6 months. The focus group data suggests multiple barriers to quitting including: environmental, cultural, attitudinal, social, behavioral and emotional factors. The adapted materials were rated as highly acceptable and culturally appropriate. The next phase of this study is to pilot test the intervention. The study will be a pre-test/post-test design and measure feasibility, acceptability and quit rates associated with the 6-session intervention. CO verified quit rates will be measured at the end of treatment and at 3 months follow-up.

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D-191d

SMOKING AMONG AFRICAN AMERICANS IN A HIGH CANCER RISK COMMUNITY

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Research shows that African Americans suffer disproportionately from tobacco-associated morbidity and mortality. The purpose of this study was to examine smoking prevalence (actual and perceived), behaviors, and smoking-related social networks in a South Florida community at high risk for tobacco-related cancers. Method: SatSCAN geospatial modeling was used to identify areas of Florida that had higher than expected incidence rates of tobacco-related cancers. Cross-sectional data were collected by face-to-face interviews in an urban community with high rates of tobacco-related cancers (N = 220). The survey instrument, adapted from the Behavioral Risk Factor Surveillance System (BRFSS), assessed cancer-risk behaviors such as smoking status and behaviors. Results: Participants were mostly female (61%), middle-aged (M = 40), unemployed (60%), with a high school education (61%). In this sample, 34.4% of respondents were current smokers, 4% were former smokers, and 62% were non-smokers. There were no differences between smokers and non-smokers in their perceptions of the smoking prevalence among youth or adults who smoke (p>.05); both rated the prevalence in their community to be high. There was a significant difference between smokers and non-smokers in relation to social networks. Smokers were more likely to live with smokers (M =1.5, SD=1.3, p = .01) and had greater numbers of friends (M =3.0, SD=2.0, p = .01) who smoked. Smoking-related social networks were associated with perceived smoking prevalence among adults (p< .01) and youth (p<.01). However, only the number of friends who smoked was a significant predictor; individuals with more friends who smoked estimated high smoking prevalence in the community. In conclusion, this study highlights the need to promote educational awareness about accurate smoking prevalence and provide resources for smoking cessation in high-risk, underserved communities.

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D-201a

DIFFERENTIAL ITEM FUNCTIONING IN THE PERCEIVED STRESS SCALE AMONG ETHNICALLY DIVERSE YOUNG ADULTS

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The Perceived Stress Scale (PSS) have been widely used to explore the relationship between stress and health. Given that conceptual models of health disparities incorporate stress, it is important to understand how the items in commonly used stress scales function in ethnically and racially diverse samples. This project explored if items on the PSS-10 functioned differently among racially and ethnically diverse young adults. The sample consisted of 424 adults (Age M = 18.93) which included 59% (n = 250) non-Hispanic White (NHW), 29% (n = 125) Hispanic (HSP) and 12% (n = 49) non-Hispanic Black (NHB) participants. These participants were part of a larger study that assessed the relationship among stress, ethnic identity and measures of health. Differential Item Functioning (DIF) analyses were performed on each of the PSS-10 using Differential Item Functioning Analysis System Version 4.0 (DIFAS) to assess if individuals from different ethnic/racial groups having the same level of perceived stress respond to items differently. No statistically significant bias was detected within items when comparing NHW to HSP participants. Ethnic/racial group membership impacted the probability of endorsing the items when comparing NHBs with the two other ethnic/racial groups. When compared to NHWs, it was easier for NHBs to endorse the first item (frequency of becoming upset about unanticipated events; OR =-.88, SE = .38, z = -2.33) and fourth item (self efficacy to handle problems; OR = .87, SE = .39, z = 2.21). The second item favored NHWs as compared to NHBs (ability to control important life aspects; OR = .79, SE = .36, z = 2.17). Item 1 favored HSPs when compared to NHBs (OR = -.78, SE = .40, z =-1.94), while item 4 favored HSPs compared to NHBs (OR = .87, SE = .42, z = 2.07). These findings have implications for the utility of certain items in diverse samples and point towards using culturally appropriate items to assess perceived stress.

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D-201b
CAREGIVING STRESS AND IMMUNE CELL BETA-2 ADRENERGIC RECEPTOR DENSITY IN SPOUSAL ALZHEIMER CAREGIVERS

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The chronic stress of caring for a spouse with Alzheimer's disease (AD) may cause increased sympathetic nervous system (SNS) activity, which can have downstream effects on immune regulation. Beta-2 adrenergic (b2) receptors located on peripheral blood mononuclear cells (PBMC) may play a role in the stress-induced alteration in immune function. Previous studies have shown that chronic stress can lead to down-regulation of adrenergic in response to elevated SNS activity. Thus, chronic stress may lead to poorer immune function in caregivers (CG). The current study examines the association of caregiving stress and b2 receptor density in spousal AD CGs. Blood samples were collected from 134 CGs (mean age 72.4+/-9.0 yrs). B2 receptor density was measured with radioligand binding in whole PBMCs using six concentrations of 125I-iodopindolol—10 to 320 pmol/liter. A nonlinear regression receptor-binding software program was used to calculate density (Bmax). Resting levels of plasma epinephrine and norepinephrine were assessed using radioenzymatic assays. Caregiving stress was measured by the Role Overload scale. A linear multiple regression model including depression, resting levels of epinephrine and norepinephrine, sex, age, and level of vulnerability as covariates was used to investigate the relationship between CG stress and b2 receptor density. Chronic stress associated with caregiving was significantly related to lower b2 receptor density (p = .036), independent of covariates. As expected, resting levels of norepinephrine had a significant inverse relationship to beta-2 receptor density; however this was not observed with resting levels of epinephrine. These findings suggest that CGs who experience more stress have a greater risk of developing problems with immune regulation.

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D-207a
EATING DISORDER PATHOLOGY AMONG LOW-INCOME MINORITY SUBSTANCE USERS IN RESIDENTIAL TREATMENT

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Substance use disorders (SUDs) and eating disorders (EDs) share a number of common characteristics, including craving, continued engagement despite adverse consequences, and high rates of psychiatric comorbidity. Further, weight gain following drug cessation can lead to an increased risk of EDs, and for some individuals, disordered eating can also trigger relapse to SU. As such, ED pathology among recently abstinent substance users may be an important factor to consider in treatment planning; however, there is little work to date examining ED pathology among diverse samples of individuals with SUDs. Therefore, the current study examined ED pathology among recently abstinent low-income substance users in residential treatment. Study participants included 119 individuals (60% male; n = 71) recruited from a SU treatment facility in Washington, D.C. Most patients in this facility are African American (90%), unemployed (75%), and report a mean age of 43 (SD = 10.5). Participants completed self-report measures, including demographics and the Eating Disorders Diagnostic Scale (EDDS; assesses DSM-IV criteria for anorexia (AN), bulimia (BN), and binge eating disorder (BED)), as well as the substance use disorders module of the Structured Clinical Interview for the DSM-IV (SCID). Regarding SUDs, the majority of the sample met diagnostic criteria for dependence on at least one substance, including alcohol (19.5%), cannabis (24.4%), opiates (11%), cocaine (25.6%), and PCP (17.1%). Results from the EDDS indicated that 5% of the sample met criteria for BN (n = 6; 3 males) and 1% were subthreshold for BN (n = 1; 1 male). No other EDs were present, and there were no gender differences. Taken together, the current sample showed elevated rates of BN symptomatology (i.e., 6% compared to 1.1-3.0% in the general population), but not AN or BED. These findings support greater attention to ED issues for individuals entering treatment for SUDs, with particular focus on BN and bulimic behaviors.

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D-207b
ASSESSING THE USABILITY OF A SELF-ADMINISTERED SMARTPHONE-BASED TREATMENT SYSTEM FOR ALCOHOL DEPENDENCE

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This project addressed the user-interface qualities of a smartphone-based, stand-alone treatment for alcohol dependence, the Location-Based Monitoring and Intervention System for Alcohol Dependence (LBMI-A). The LBMI-A delivers seven different treatment modules including; 1) assessment of alcohol use patterns and consequences with accompanying feedback, 2) high risk location monitoring and alerts using GPS technology, 3) supportive person selection and connectivity, 4) managing cravings, 5) managing life problems, 6) pleasurable activity selection and scheduling, and 7) productive communication strategies. The LBMI-A also assesses alcohol use and cravings in vivo, provides immediately accessible tools to manage drinking-related issues and on-going feedback reports on alcohol use and related triggers. Twenty eight participants, ranging in age from 22 to 45, used an LBMI-A enabled HTC Tilt 2 smartphone for 6 weeks. Participants then completed questionnaires and qualitative interviews related to system usability and functions they found to be most and least helpful, as well as any technological challenges they experienced. Results indicated that participants found the LBMI-A treatment modules to be easy to comprehend and instrumental in helping to highlight alcohol use patterns and triggers. Responses indicated that the LBMI-A tools were easily accessible, but were not heavily utilized due to numerous factors, including the LBMI-A not being loaded on their personal phone, concerns related to privacy, and motivational factors. Participants indicated that the most beneficial feature of the system was the daily interview, which reviews daily alcohol use and triggers, populating a feedback report. Results also suggested that participants found the high-risk location feature to be the least helpful and potentially problematic feature due to privacy concerns and technological challenges. Implications for system improvement and for designing ecological momentary assessment and intervention systems for alcohol dependence will be discussed.

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D-207c

EFFECTS OF CURRENT ALCOHOL USE ON THE PERCEPTION OF MENTAL HEALTH AMONG AN INTERNATIONAL SAMPLE OF DEPRESSED WEB USERS

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The rate of alcohol use is high in today's society with approximately 83.1% of the general population indicating lifetime use. Substance use poses an increased risk for co-morbid physical and mental health conditions. Lifetime alcohol dependence is prevalent in 15% of the population; however, only 3.3% of individuals meeting criteria for alcohol use disorders recognize a need to seek treatment. In spite of this data, limited research exists on the impact of alcohol use on an individual's perception of mental health disorders (e.g. mood disorders). Given the high prevalence of alcohol use, it is necessary to explore the effects of alcohol on individuals' perception of their mental health status. The primary goal of this study is to examine the influence of current alcohol use on perceptions of mental health among currently depressed individuals. Data were extracted from a Web-based survey that collected health related data from individuals that were interested in finding health information online. Participants (N=7,870) were from 167 countries and completed the anonymous survey between November 2006 and September 2011. Five hundred and fourteen participants met DSM-IV criteria for current major depression and were included in the analyses. Participants were, on average, 33 years old (SD=13.2), predominantly female (73.7%), self-identified as Latino (51.3%) and Spanish-speakers (58%). Of these, 417 indicated current alcohol use with 38% scoring a two or higher on the CAGE. Data collection is ongoing. Future analyses will focus on participants' perceptions of their mental health status and identify correlates that influence this perspective. Results from this study have the potential to increase our understanding of additional factors that can facilitate or hinder individuals' perception of a mental health disorder, which correspondingly would influence mental health utilization. With this understanding, we will aim to improve the use of mental health service utilization among individuals who may lack the insight to obtain it.

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D-207d

RACIAL DIFFERENCES IN PARENT-ADOLESCENT RELATIONS AND ALCOHOL TRAJECTORY PATTERNS

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Introduction: Alcohol drinking patterns (i.e., timing of initiation, level of use) vary by race/ethnicity. The current study examined how the relationship between parent-adolescent relations and alcohol trajectory patterns varied among Whites and Blacks.

Methods: We used the National Longitudinal Survey of Adolescent Health (Add Health), a nationally representative study. This longitudinal study followed adolescents into adulthood.

Results: Growth curve modeling found that the number of drinks in the past 30 days followed a logarithm change pattern across age 14 -31. White respondents had a starting value (mean = .19, z = 2.27, p < .01) similar to that of the black respondents (mean = .27, z = 2.30, p < .01). However, White respondents had a significant increase over time (mean =.24, z = 5.78, p< .01), while Black respondents had some ups and downs and decreased slightly over time (mean = -.08, z = 2.12, p < .05).

Significant associations were found between a warm and caring father-adolescent relations and the number of alcohol use in the past 30 days in the starting values (b = -.23, z = 4.16, p < .01) and the increase (b = .07*, z = 4.16, p < .01) in the White respondents. A warm and caring mother-adolescent relations was also found associated with the starting values (b = -.16, z = 3.08, p < .01) and the increase (b = .05*, z = 2.54, p < .05) of the number of alcohol use in the White respondents. In contrast, no association s were found for Black respondents.

Conclusions: Knowledge of how the relationship between parent-adolescent relations and patterns of alcohol use differs among Whites and Blacks extends our understanding of the etiology of alcohol use and may inform preventive and treatment interventions.

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D-211a

HEALTH LITERACY AND NUMERACY IN TRANSPLANTATION: CAN OUR PATIENTS ADHERE IF THEY WANT TO?

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Successful organ transplantation requires long term adherence to complex medical regimens. Pre-surgical evaluations need to assess candidates' cognitive ability to take medication accurately and follow directions. This study screened candidates for health literacy, health related numerical ability, and general cognitive ability.

Half of Americans have limited health literacy, the ability to obtain, process, and understand basic information required to make health decisions. In the absence of gross cognitive deficits, physicians are often unaware of their patients' limitations, which may impair communication with medical professionals, understanding of diagnoses, and adherence to treatment regimens.

This study screened 98 patients with end stage disease during the work up for transplantation (67.3% M; 62% Caucasian). The sample included 39% needing liver transplant, 19% kidney, 18% heart, 14% lung, and 10% bone marrow transplant. Screening included the Montreal Cognitive Assessment (MoCA), a brief measure of cognitive functioning, the Rapid Estimate of Adult Literacy in Medicine (REALM) and a measure of medical math (MM); 4 items specific to calculating simple nutrition and medication changes.

Higher education was related to both higher reading level (F=9.28, p<.001) and medical math (r=.44, p<.001). Reading level was also significantly related to medical math (F=20.00, p<.001). Both were related to cognitive functioning on the MoCA (REALM F=17.85, p<.001; MM r=.45, p<.001) as well as subscales: executive functioning (F=3.03, p=.03; r=.37, p=.001), attention (F=18.66, p<.001; r=.29, p=.01), language (F=13.26, p<.001; r=.28, p=.01), abstraction (F=5.77, p=.004; r=.24, p=.04), delayed recall (F=7.31, p=.001; r=.27, p=.02), and orientation (F=3.64, p=.03; r=.28, p=.02).

Strikingly, although 95.9% had ≥ a 9th grade education, only 70% could read at the 9th grade level. And 48.7% scored < 4/4 on simple medically related arithmetic. Doctors and nurses are likely unaware of deficits which may impact adherence. Screening can identify patients who need more assistance but may be afraid to ask.

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