Wednesday

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SOCIO-DEMOGRAPHIC MODERATORS OF THE ASSOCIATIONS OF PSYCHOSOCIAL STRESSORS AND DEPRESSION WITH LATINAS’ CANCER SCREENING

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Background: Latinas have low rates of breast (BC) and colorectal cancer (CRC) screening. Psychosocial stressors and depression may be important barriers to screening. This study tested for socio-demographic moderators of the associations of psychosocial stressors and depression with Latinas’ BC and CRC screening.

Methods: We analyzed baseline data from 297 Latinas participating in a faith-based intervention to promote physical activity and cancer screening in San Diego, CA. Survey measures included socio-demographics, psychosocial stressors (barriers to screening and general stress), depression, and cancer screening (mammography, clinical breast exam (CBE), fecal occult blood test, and colonoscopy/sigmoidoscopy). We used mixed effects models, adjusted for church clustering, cancer knowledge, and age to examine associations of psychosocial stressors and depression with BC screening among those aged ≥40 years and CRC screening among those aged ≥50 years. We tested interactions of psychosocial stressors and depression with education, income, marital status, and acculturation.

Results: Screening was low, e.g., 48% adhered to mammography uptake and 34% ever completed a colonoscopy/sigmoidoscopy. Acculturation moderated the association of barriers to screening with mammography uptake, with a lower odds found among the higher acculturation group (OR=0.41, 95% CI: 0.23-0.74) than those of lower acculturation (OR=1.03, 95% CI: 0.70-1.53). Significant negative associations of psychosocial stressors and depression with CBE uptake were found only among the lower educated, single, and higher acculturated groups. A negative association of barriers to screening with colono­scopy/sigmoidoscopy uptake was found only among single women.

Conclusions: Negative associations of psychosocial stressors and depression with Latinas’ BC and CRC screening were found among lower educated, higher acculturated, and single women. Interventions are needed targeting psychosocial and mental health barriers to screening among Latinas, particularly those less likely to be screened.

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A008a 6:00 PM-7:00 PM

THE FEASIBILITY AND PRELIMINARY EFFICACY OF A MINDFULNESS-BASED LIFESTYLE INTERVENTION FOR ENDOMETRIAL CANCER SURVIVORS

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Mindfulness-based interventions (MBIs) are increasingly advocated as a part of multimodal behavior change strategies. The self-regulation of lifestyle (diet, physical activity) behaviors may be potentially useful as a part of weight-loss programs for endometrial cancer survivors (ECS), who are at increased risk for morbidity and mortality associated with obesity. However, the acceptability of mindfulness training and whether it can augment dietary counseling and improve physical activity (PA) participation in ECS is unknown. We aimed to examine: 1) the feasibility of delivering the Mindfulness in Motion™ + Dietary counseling (MIM+D) intervention to ECS and 2) the preliminary efficacy of MIM+D for improving mindfulness, diet, moderate to vigorous physical activity (MVPA) and health-related quality of life (HRQL). ECS (Mage=62.4, ±5yrs from diagnosis) completed assessments at baseline, 8 and 14 weeks. Feasibility was determined by intervention completion surveys, attendance and adherence data. We used repeated measures ANOVA’s (SPSS 22.0) and effect size estimates (Cohen’s d) to examine changes in mindfulness, diet, MVPA, and HRQL over time. Women were predominantly white (88%), college-educated (85%), low active (~65 m/wk MVPA) with poor diets and obese (BMI=33.8±6.5). 13 ECS (76%) completed the MIM+D program and attendance (~6/8 sessions) was 90%. Women reported favorably on the overall quality (mean of 4.75/5 on a 5 point scale) of intervention; 1) the feasibility of delivering the MIM+D program and attendance (~6/8 sessions) was 90%. Women reported favorably on the overall quality (mean of 4.75/5 on a 5 point scale) of intervention; 2) the preliminary efficacy of MIM+D did not significantly improve any outcomes. However, an intervention completers analysis showed significant change in mindfulness (p=.03) and moderate to large effect size estimates for change in fruits and vegetable intake (d=.20), MVPA (d=.45), SF-36: MCS (d=.34), FACT-En (d=.38) and sleep quality (d=.45). Integrating mindfulness training into behavioral interventions is feasible and despite being underpowered, it does seem that for ECS that adheres to behavioral lifestyle programs there may be benefit. However, examining the long term effects of lifestyle interventions is needed in order to extend this work.

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THE IMPACT OF DEPRESSIVE SYMPTOMS ON ATTITUDES, KNOWLEDGE, AND BEHAVIORS RELATED TO OBESITY IN GYNECOLOGIC CANCER SURVIVORS
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Introduction: Obesity is a risk factor for gynecologic cancer (GC) recurrence and mortality, yet oncologists do not always counsel patients on weight loss. This study examines the association of depression with GC survivors’ knowledge of obesity and cancer-related outcomes, attitudes about physician involvement in weight loss, and health-related behavior changes.

Methods: 244 participants (38% endometrial, 37% ovarian, 16% cervical, 8% other) were included in the study. The study involved a survey on dietary practices, weight loss, and depressed mood. The survey was conducted using the Weight and Lifestyle Inventory (WALI), the Women’s Health Questionnaire (WHQ) depression/anxiety scales, and the Cancer Fatigue Scale (CFS).

Results: Mean participant BMI was 31.6 (SD = 9.6). 21% of participants reported less than 1 hour of weekly moderate activity; 62% attempted weight loss in the past 5 years, most often with self-directed dieting (63%) and exercise (35%). Regarding knowledge, many were uncertain whether obesity (≥ 36%) or weight loss (≥ 39%) affects risk of GC or recurrence. Regarding physician involvement, most survivors (≥ 85%) agreed that oncologists should discuss healthy eating, exercise, and weight loss. 79% reported being more likely to attempt weight loss if instructed by a physician; 59% reported they would not be offended if told to lose weight. Participants with more depressive symptoms were less willing to lose weight (r = -.31, p < .001) if instructed by a physician; those with more depression and anxiety were less likely to believe self-directed diet or exercise would facilitate weight loss (rs = -.14 to -.18, ps < .05). Greater depression was associated with less physical activity (part r = -.29, p < .001) and activity enjoyment (part r = -.16, p < .001), controlling for BMI.

Conclusions: Women with GC are receptive to weight loss counseling and believe it would facilitate behavior change. Oncologists are encouraged to address patients’ limited understanding of obesity related to cancer and recurrence risks as well as to discuss weight loss. Depression is associated with reduced willingness for behavior change and healthy activity; providers are encouraged to address mood symptoms when developing behavior change plans.

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UNIQUE INFLUENCES OF MEDICAL MISTRUST AND PERCEIVED DISCRIMINATION ON WOMEN’S RESPONSES TO BREAST DENSITY NOTIFICATION

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Women with dense breasts (i.e., larger ratio of fibro-glandular relative to fatty breast tissue) are at increased risk for breast cancer. Breast density (BD) notification laws have been implemented in 24 states to increase women’s awareness of their own risk. These laws generally mandate that relevant women are informed that they have dense breasts, and suggest that women discuss subsequent steps for breast imaging with their physicians. Following from research showing that perceptions of discrimination and medical mistrust influence screening behaviors and physician communication among African American (AA) women, we used the theory of planned behavior to examine whether and how discrepancies between perceived group vs. personal discrimination and group-based medical mistrust affected intentions to discuss BD notification with one’s physicians. We report data from AA and European American (EA) mammogram screen negative women in MI who participated in our study approximately 3 weeks after receiving BD notification ($N = 329$). AA women had stronger intentions to discuss BD notifications with their physicians ($M = 5.54$ vs. $5.06$, $t_{312} = 2.91$, $p < .01$). Results of multi-group path analyses indicated that controlling for the effects of attitude, injunctive and descriptive norms, and perceived behavioral control, discrimination discrepancy had a direct effect on intentions for AA women only (standardized estimate [stan est] = .14, $p < .05$). Additionally, group-based medical mistrust predicted descriptive norms (stan est = -.19, $p < .05$) for AA women. Discrimination discrepancy predicted perceived behavioral control (stan est = .25, $p < .01$) for AA women, whereas group-based medical mistrust predicted perceived behavioral control for EA women (stan est = -.17, $p < .05$), suggesting that general perceptions of medical mistrust may have indirect effects on behavioral intentions regardless of racial group membership. We also present data suggesting that anxiety related to being notified about breast density has opposite effects on behavioral intentions for AA and EA women.

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WHAT SELF-MANAGEMENT STRATEGIES DO HEAD AND NECK CANCER SURVIVORS USE ON COMPLETION OF THEIR PRIMARY TREATMENT?

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Objective: To identify the self-management strategies that head and neck cancer survivors use following primary treatment.

Methods: Twenty-seven individuals who had completed primary treatment for head and neck cancer were recruited from four designated cancer centres in Ireland and interviewed about the self-management strategies they used to deal with any challenges they encountered following treatment. Interviews were audio-recorded, transcribed and analysed using directed content analysis.

Results: Twenty self-management strategy types encompassing 77 specific strategies were identified: Pro-active problem solving (2 strategies), Healthy environment creating (4 strategies), Goal and action setting (4 strategies), Rational decision-making (4 strategies), Activity coping (2 strategies), Self-sustaining (4 strategies), Self-motivating (8 strategies), Positive appraisal (3 strategies), Acceptance (3 strategies), Adopting healthy approach (4 strategies), Emotional Energy-conserving (2 strategies), Cognitive avoidance (3 strategies), Managing others (4 strategies), Seeking normality (5 strategies), Using sense of humour (2 strategies) and Using support (6 strategies). The most commonly used self-management strategy types were Pro-active problem solving, Self-sustaining and Self-motivating.

Conclusions: The study has identified key self-management strategies that head and neck cancer survivors use to deal with post-treatment challenges, some of which appear to be specific to this condition. This information will be used to inform the design and development of a self-management intervention tailored specifically for head and neck cancer survivors.

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WILLINGNESS TO RELEASE PERSONAL ON-LINE HEALTH RISK ASSESSMENT RESPONSES FOR POTENTIAL CANCER PREVENTION TRIALS RECRUITMENT

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Participation rate in clinical cancer prevention trials (CPT) is lower than 3% among high-risk, unaffected individuals, suggesting that novel recruitment strategies are needed. The US employee population is large and diverse, and employer-sponsored on-line health risk assessments (HRA) are common gateway to other worksite wellness programs. Typical HRA assesses many cancer risk factors, offering the opportunity to identify individuals with higher cancer risk and link them to CPT. Using the Precaution Adoption Process Model (PAPM) framework, we studied the feasibility of asking employees to release their personal HRA responses on-line as a new recruitment approach to CPT participation. Each step of the PAPM was operationalized by a subscale on the survey. Employees of a health system (N=99) were recruited to complete a survey about their interest in knowing more about their cancer risk, awareness and interest in learning more about CPT, interest in participating in personalized CPT, and willingness to release their personal HRA responses to register as potential CPT participants. Willingness to release personal HRA responses is the dependent variable. Multiple linear regression results show that interest in participating in CPT alone significantly predicts willingness to release (F(1,97)=18.478, adjusted R²=.151, p < .0001). However, the best prediction model includes both interest in knowing more about cancer risk and interest in participating in CPT (F(2,96) = 12.23, adjusted R²=.19, p < .0001). Interest in participating in CPT significantly augmented the model at the second step, ∆F(1,96)=5.18, ∆R²=.043, p<.05. Greater interest in knowing about cancer risk (β=.24, t=2.28, p < .05) and greater interest in participating in CPT (β=.54, t=2.54, p < .05) predict greater willingness to release personal HRA responses. In conclusion, employees would be willing to release their personal HRA responses for CPT recruitment, as long as they are interested in knowing more about their own cancer risk and participating in personalized CPT. The awareness and knowledge about CPT may not be needed. Not all PAPM steps are necessary in the new on-line risk communication environment, particularly in the case for CPT recruitment.

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A COGNITIVE BEHAVIORAL INTERVENTION PRIOR TO CHEMORADIOTherAPY TO REDUCE PAIN IN HEAD AND NECK CANCER PATIENTS

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Pain is highly prevalent in head and neck (H&N) cancer patients receiving chemoradiotherapy (CRT) and can lead to unplanned breaks in CRT compromising curative outlook. Cognitive behavioral (CB) interventions effectively reduce chronic pain in other clinical populations, but studies on H&N cancer patients are scant. The primary goal of our pilot project was to determine the feasibility of a brief CB intervention for H&N cancer patients prior to CRT; we also explored intervention effects on treatment adherence. Newly diagnosed adults with H&N cancer were randomized to intervention or control. The intervention combines relaxation training, cognitive training, and mindfulness skills to address pain and anxiety. Participants were assessed and tracked from before to 6 months post-CRT. Consent was obtained from 22 patients and baseline data was collected from 16 patients (78% male, mean age=56.6, SD=16.8) with post-intervention data from 10 patients. No significant differences were found between the two groups at baseline on standardized measures of pain (BPI), fatigue (MFSI), anxiety (GAD-7), depression (PHQ-9), pain catastrophizing (PCS), sleep quality (PSQI), impact of events (IES), and heart rate variability (all p’s>.05). Baseline pain severity (BPI) was significantly correlated with fatigue, anxiety, depression, pain catastrophizing, sleep quality, and cognitive intrusions (IES) (all p’s < .05). Review of patient records suggests that patients in the intervention group were more likely to complete their planned cumulative chemotherapy dose (37.2% vs. 0%) and complete their cumulative radiation dose (93.8% vs. 67.0%). Psychological characteristics of study participants suggest the importance of managing pain and disease related cognitive dysfunction as well as physical functioning. Study recruitment and participation proved challenging, suggesting the need to modify intervention recruitment and participation strategy, perhaps within a motivational interviewing framework. The long-term goal of our program is the dissemination of a brief CB intervention that effectively prevents the development of chronic pain in patients with H&N cancer undergoing CRT.

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A CROSS-SECTIONAL ANALYSIS OF COPING WITH SIGNIFICANT PAIN SEVERITY AND INTERFERENCE IN NON-METASTATIC BREAST CANCER PATIENTS

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Women with breast cancer (BCa) often struggle with clinically significant levels of pain severity and interference. Little is known about the relationship between coping and pain across BCa diagnosis, treatment, and recovery. We explored associations between coping and clinically significant pain severity (CPSs) and interference (CSPi) during the first year of the BCa experience post-diagnosis. Stage 0-III BCa patients were recruited 2-12 weeks post-surgery. At study entry (T1), 6 (T2), and 12 (T3) months follow-up, women completed the Brief COPE measure of coping responses to BCa diagnosis and treatment, and the Brief Pain Inventory (BPI). Cross-sectional linear regressions on Brief COPE and BPI scores were run on a subset of women with CPSs and CSPi (BPI severity and interference scores ≥3/10 controlling for age, ethnicity, BCa stage, pain medication, days since surgery, and treatment received (i.e., chemotherapy or radiation in the last 3 weeks). At T1, women had moderate levels of CPSs (N=72, M=4.25, SD=1.43) and CSPi (N=67, M=5.08, SD=1.59). Report of denial was associated with higher levels of CPSs in this subset of clinically elevated cases (β=0.44, t(72)=4.06, p < .01). At T2, women had similar levels of CPSs (N=37, M=4.49, SD=1.80) and CSPi (N=33, M=5.37, SD=2.04). Denial remained associated with greater levels of CPSs (β=0.42, t(37)=2.36, p < .01), while venting was associated with higher levels of both CPSs (β=0.43, t(37)=2.14, p < .05) and CSPi (β=0.44, t(33)=2.47, p < .05) in these clinically elevated cases. At T3, levels of CPSs (N=34, M=4.65, SD=1.61) and CSPi (N=26, M=5.00, SD=1.57) were largely unchanged. Planning was associated with higher levels of CPSs (β=0.48, t(34)=2.59, p < .05), while denial was associated with higher levels of CSPi (β=0.50, t(26)=2.63, p < .05) in this subset of clinically elevated cases. Certain coping methods are associated with pain reports among women with CPSs and CSPi throughout the BCa experience post-diagnosis. Use of denial was consistently associated with greater pain reports during the first year of treatment for primary BCa (T1, T2, and T3), while venting and planning related to pain as women were completing adjuvant therapy (T2 and T3). Future psychosocial interventions for non-metastatic BCa patients should promote acceptance-based practices to curb maladaptive coping among women reporting CPSs and CSPi.

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ADULT SELF-IMAGE, AGENCY, AND OCCUPATIONAL PROBLEMS IN YOUNG ADULT TESTICULAR CANCER SURVIVORS

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Background: Young or “emerging” adults describe perceiving themselves as in between adolescence and independence. A testicular cancer diagnosis in this period has potential to slow or change the course of development and affect a young person’s goals across life domains, including occupational pursuits. A core feature of adulthood is engagement with career goals, and men with a diminished adult identity may have problems realizing their goals. The degree to which one maintains an adult identity could be related to occupational functioning and this relationship might be explained by the degree that one feels they are an agent of their volitional actions.

Objectives: 1) To examine adult self-image; 2) To examine the relationship between adult self-image, agency, and job problems; 3) To examine whether agency is a mediator of adult self-image and job problems.

Research Design: 171 young adults (ages 18-29) testicular cancer survivors were recruited via a state cancer registry and completed measures of adult self-image (CAYA-T), agency (Personal Attributes Questionnaire), and job problems (EORTC QLQ-TC 26).

Results: Adult self-image was significantly correlated with higher education (r=.19, p=.18, r=.52, p=.26, r=-.31, p=.31, pp=.16), an indirect effect of adult self-image on job problems through agency was significant (β=-.16, p=.05).

Conclusions: Agency may be sensitive to adult self-image after cancer. To the extent that agency impacts functioning and overall quality of life, it might be an important target of future intervention. Future work will explore the dynamic adult self-image, occupational problems, and psychosocial outcomes over time.

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ASSOCIATION OF INSURANCE COVERAGE WITH HPV VACCINATION RATES PRE- AND POST-AFFORDABLE CARE ACT

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Introduction: Human papillomavirus (HPV) currently affects over 79 million people in the United States. Each year there are approximately 14 million new infections, and half of these new infections occur in 15-24 year olds. Prior to the Affordable Care Act (ACA), the HPV vaccine series of three shots cost approximately $150/shot for uninsured or underinsured individuals. The ACA requires coverage of the HPV vaccine at little-to-no cost. Therefore, the purpose of this study was to compare HPV vaccination rates pre- and post-ACA.

Methods: Two waves of National Health and Nutrition Examination Survey (NHANES) data were analyzed to compare HPV vaccination rates and number of shots received (2007-2008 and 2013-2014). Rao-Scott chi-square tests were used to determine the association of age, gender, annual household income, education, race, or insurance coverage with vaccination uptake. Separate multiple logistic regressions were used to evaluate the relationship between insurance status with vaccination uptake and number of shots completed, controlling for age and race.

Results: The proportion of participants without insurance decreased from 18.34% in 2007-2008 to 18.19% in 2013-2014. Girls and women who received the HPV vaccination more than doubled from 6.13% to 14.08%. Along with the increase in overall vaccination uptake, the proportion of participants who reported vaccination completion (3 doses) increased significantly (39.62% in 2007-2008 to 65.37% in 2013-2014). In 2013-2014, respondents were 2.89 times more likely to be vaccinated compared to 2007-2008 (95% CI=1.77,4.73) controlling for age, race and insurance coverage. Similarly, respondents were more likely to have received 2 (OR=2.72, 95% CI=1.43,5.19) or 3 doses (OR=5.68, 95% CI=2.33,13.86). Individuals with government insurance (OR=1.72, 95% CI=1.04, 2.84) were more likely to report being vaccinated, but not those with private insurance (OR=1.56, 95% CI=0.93, 2.61).

Conclusion: Implementation of the ACA may have had a significant impact on vaccination uptake from 2007 to 2014. Participants were more likely to receive 2 or 3 doses of the vaccine post-ACA implementation. HPV vaccination has the potential to save many lives by preventing HPV-related infections and cancers. Future studies may focus on the role insurance has on vaccination uptake, and meeting Healthy People 2020 objectives.

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BEYOND KNOWLEDGE: THE ROLE OF SELF-EFFICACY IN HEPATITIS B SCREENING BEHAVIOR AMONG ASIAN AMERICANS

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Asian-Americans (AA) in the US suffer from significant liver cancer disparity. The strongest risk factor of liver cancer is chronic Hepatitis B virus (HBV) infection. Although HBV infection can be effectively prevented by hepatitis B vaccination, foreign-born AA may not have received the vaccination when they were born in their native countries. Many of them also do not know their HBV infection status, because the infection is asymptomatic. Therefore, liver cancer prevention effort among AA begins with promoting HBV screening behavior. Previous study found that knowledge about modes of HBV transmission itself significantly predicts HBV screening behavior, but based on the social cognitive theory, knowledge alone is not sufficient for behavior change. Self-efficacy is also required to translate knowledge into action. In addition, knowledge by efficacy interaction may further increase the likelihood of the target behavior. This current study is part of a community-based health promotion program that aimed at three major groups of AA: Korean, Chinese, Vietnamese, in the DC-Baltimore metropolitan area, conducted in 2009-2010. They were recruited from various community-based organizations to attend an education session about HBV and liver cancer prevention. Baseline surveys were administered to collect their demographic and psycho-social characteristics. Among the 877 participants, 409 (46.6%) of them reported having HBV screening before. Logistic regression analysis was used to investigate whether HBV knowledge, self-efficacy to get tested, and their interaction predict the HBV screening behavior. Results show that after controlling for age, gender, and education, knowledge significantly increases the likelihood of having an HBV screening (adjusted odds ratio (AOR)=1.22, Wald=36.83, p < .0001). Above and beyond knowledge, self-efficacy also significantly increases the likelihood of the target behavior. Results show that after controlling for age, gender, and education, knowledge significantly increases the likelihood of having an HBV screening (AOR=1.19, Wald=13.11, p < .0001). However, the knowledge by efficacy interaction did not significantly further increase the likelihood of having an HBV screening. Implication from this study is that self-efficacy, in addition to knowledge, should always be included and tracked in health promotion intervention research.

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BREAST CANCER PATIENTS’ PERCEPTIONS OF THE RISK OF FUTURE CANCER

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BACKGROUND: For women with locally invasive or intraductal breast cancer, the 10-year risk of developing a new cancer in the contralateral breast is approximately 6%. However, breast cancer patients have been found to grossly overestimate their 10-year contralateral breast cancer (CBC) risk; previous research reported an average perceived CBC risk of 31.4% when assessed prior to surgical consult. In this study we explored women’s perceived risk of future cancer following surgical consult and qualitatively examined how women arrived at risk estimates.

METHODS: We interviewed women age 21-60 diagnosed with ductal carcinoma in-situ or stage I-III invasive breast cancer without a BRCA mutation between surgical consult and surgical treatment. Participants completed a 12-item Perceived Risk Questionnaire, which includes 3 questions assessing 10-year perceived risk as a percentage, where 0=certain not to happen and 100=certain to happen. Each woman was asked to explain how she arrived at her stated risk estimates.

RESULTS: Interviews were completed with 52 patients (mean age 49.5 years). Participants were primarily White (81.0%) and college educated (75.0%). Patients estimated their 10-year risk as 22.8% for CBC, 21.4% for breast cancer in the same breast, and 19.4% for cancer elsewhere in the body. Overall, women attributed risk estimates to “gut feelings” and information received from doctors. Over 30% of the sample estimated their CBC risk as 30% or greater. This subset of women saw future cancer as random (i.e., “a 50-50 chance”), or based risk estimates on “gut feelings” (e.g., “I answered 80 percent and I know that’s completely irrational, but that’s how I feel”).

DISCUSSION: Women in this study reported lower perceived risk of CBC than in a study of women surveyed prior to surgical consult, suggesting that surgical consult may lead to a reduction in perceived risk. Nonetheless, women perceived their CBC risk to be nearly 4 times the actual estimated risk, pointing to the need for novel ways of presenting factual information regarding risk of new primary cancers and addressing women’s intuitive perceptions of future cancer risk.

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CANCER SCREENING IN THE LGBT COMMUNITY: A SYSTEMATIC REVIEW OF LITERATURE
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Little is known about cancer screening rates and predictors of cancer screening in the LGBT community. We examined published studies to investigate the state of cancer screening research in this population. A review of PubMed, EMBASE, and LGBT Life was performed for studies published in peer-reviewed journals (years 2000 to 2015), conducted in the United States, and written in English. An example of search terms used were ["neoplasm" OR "tumor"] AND ["early detection of cancer" OR "diagnosis" OR "screening"] AND ["attitude to health" OR "barriers"] AND ["homosexuality" OR "gay"]. Eligible papers were included in the final analysis after meeting the following inclusion criteria: (1) records had to examine and report cancer screening rates and/or barriers for cancer screening in lesbian, gay, bisexual, and/or transgender individuals, (2) the number of LGBT participants had to be clearly specified, and (3) studies reporting differences in cancer screening rates and/or barriers for cancer screening between LGBT and non-LGBT individuals. Of the 104 articles identified, 21 met inclusion criteria and addressed cancer screening rates and/or barriers to cancer screening in the LGBT population. Most studies evaluated Pap test utilization in lesbian and bisexual women (N=13). Some studies reported similar Pap test and mammography rates when lesbians and bisexual women were compared with heterosexual women (N=6). Studies with gay men focused on anal cancer (N=3). Only one study reported results from transgender individuals. Factors such as “outness” (disclosure of sexual orientation) to primary care providers (PCPs) and perception of discrimination from PCPs seem to influence willingness to complete cancer screening. There is a lack of research to determine a pattern of cancer screening rates and cancer screening barriers in LGBT individuals. More quality studies are needed which focus on cancer prevention and control in this population.

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A019j 6:00 PM-7:00 PM

BARRIERS AND FACILITATORS TO BRCA1 AND BRCA2 GENETIC COUNSELING AMONG AT-RISK LATINA BREAST CANCER SURVIVORS IN WASHINGTON D.C.
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Despite the potentially life-saving information that genetic counseling and testing can provide for women at risk for hereditary breast and/or ovarian cancer, Latinas disproportionately underuse genetic services. Understanding Latinas’ beliefs and attitudes about genetic counseling for BRCA1/2 genetic mutations is a first step to improving health outcomes within this underserved, at-risk group. We conducted 20 in-depth qualitative interviews in Spanish or English with at-risk Latina women. Women were eligible if they were at an increased risk of breast and/or ovarian cancer based on a personal diagnosis under age 50 and/or a family history of breast and/or ovarian cancer (>1 first degree relatives diagnosed 50 years). All interviews were conducted in Spanish and audiotaped with women’s permission. Audiotapes were transcribed and translated into English. Two independent coders read through transcripts and themes were identified using thematic analyses and qualitative description approaches. In contrast to prior work, Latinas in the present study were living in the DC metropolitan area and represent diverse countries of origin, the majority being from Bolivia, Guatemala and Peru. Results revealed very low levels of personal and community knowledge about BRCA genetic counseling, although women reported positive attitudes about counseling. Women reported their main motivator to undergo counseling was concerns about learning family members’ cancer risk status; main barriers included financial concerns, confusion about insurance, and lack of awareness about genetic services. Interest in learning more about genetic counseling and other cancer prevention efforts did not differ by age. Participants were largely enthusiastic about educational efforts to increase awareness of genetic counseling among Latinos. Understanding the beliefs and attitudes of Latinas at high-risk for cancer will contribute to development of culturally appropriate educational materials and interventions to increase BRCA genetic counseling uptake within this underrepresented community.

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CARINGGUIDANCE™ INTERNET INTERVENTION REDUCES DISTRESS AFTER BREAST CANCER DIAGNOSIS

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Significant cancer-related distress affects the psychological and physical wellbeing of 30% of women with breast cancer. Distress management is vital for the 3 million breast cancer survivors as significant distress may manifest into sub-threshold or diagnosable mental disorder. Cancer diagnosis and early treatment are peak distress periods.

Method: 100 women diagnosed with their first stage 0 – 2 breast cancer in the past 3 months, self-referred from flyers/ads, and were randomized to unlimited self-guided use of the CaringGuidance™ Internet-program or usual care for 3 months. Both groups completed demographic and psychosocial measures including the Distress Thermometer (DT) and Impact of Event Scale (IES) at baseline and monthly; a daily symptom/support/activity diary; and received a monthly call from study staff. A custom data monitoring/analysis system monitored program time-in-use.

Results: Subjects were 54 years old (Mean) and from 5 U.S. states. The majority was married; college educated, employed, had no prior mental health diagnosis, and had not yet had breast surgery at baseline. Intervention and control groups did not differ significantly on these variables or distress at baseline. All subjects had prior Internet experience. Mean DT scores decreased from baseline to month 3 (4.56 to 2.55 (Intervention) vs 4.65 to 2.55 (Control), month 3; p=.010). Hierarchical linear modeling demonstrated a significantly greater rate of DT score reduction for the Intervention vs. Control group (p=.006). Mean IES also differed significantly at month 3 for Intervention (12.88) vs. Control group (20.01) (p=.044).

Conclusion: CaringGuidance™ is an effective, low cost, no-resource intervention for women newly diagnosed with breast cancer to reduce distress in the first 3 months after diagnosis.

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COPING SKILLS PRACTICE AND SYMPTOM CHANGE IN A SYMPTOM MANAGEMENT INTERVENTION FOR LUNG CANCER PATIENTS AND THEIR CAREGIVERS

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Little research has explored the degree to which specific intervention components predict improved health outcomes for cancer patients and their family caregivers. The present study examined relations of intervention components (i.e., coping skills) to symptoms in a telephone symptom management (TSM) intervention delivered concurrently to symptomatic lung cancer patients and their family caregivers. Guided by Social Cognitive Theory and behavioral therapy frameworks, patient-caregiver dyads were taught coping skills including: a mindfulness exercise, pursed lips breathing, guided imagery, cognitive restructuring, and assertive communication. Symptom measures were administered at baseline and 2 and 6 weeks post-intervention. The measures assessed patient and caregiver depressive and anxiety symptoms as well as patient pain severity, distress related to breathlessness, and fatigue interference.

Data were examined from patient-caregiver dyads enrolled in TSM (N=51 dyads). Patients and caregivers were predominantly female (55% and 73%, respectively) and Caucasian (87%). The average age was 60 years. Seven autoregressive panel models tested relations of coping skills to symptoms. All models fit the data well (χ² ps>0.05, RMSEA < 0.06). For patients at 6 weeks post-intervention, more guided imagery practice was related to less pain, fatigue, and depressive and anxiety symptoms; additionally, more guided imagery practice was related to less fatigue and anxiety. In contrast, more cognitive restructuring practice was related to more distress related to breathlessness and depressive and anxiety symptoms. Similarly, more practice of a mindfulness exercise was related to more fatigue and anxiety. For caregivers at 2 weeks post-intervention, more guided imagery practice was related to more anxiety. All other pathways at 2 and 6 weeks post-intervention were non-significant. Findings suggest intervention effectiveness may have been reduced by competing effects of certain coping skills.

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DEVELOPMENT AND ASSESSMENT OF A PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOR GUIDEBOOK FOR KIDNEY CANCER SURVIVORS

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Background: The Trying Activity in Kidney Cancer Survivors (TRACKS) Trial is the first randomized controlled trial of a physical activity (PA) intervention in kidney cancer survivors (KCS). At the core of the trial is the theoretically-based PA counseling sessions coupled with a PA guidebook. However, the guidebook was not evaluated for its suitability and theoretical merit, which is essential for developing evidence-based resources for behavior change. The purpose of this study is to develop and evaluate a theory-based PA and sedentary behavior (SED) guidebook for KCS.

Methods: The guidebook content was based on the Theory of Planned Behavior (TPB). Expert judges (N=60) included KCS (n=36), medical oncologists (n=4), rehabilitation oncology practitioners (n=9), health information specialists (n=2), and TPB researchers (n=9). All expert judges were provided with a guidebook to assess suitability and appropriateness using the Maine Area Health Education Checklist (AHEC). Additional items assessed feasibility, safety, and accuracy. TPB experts assessed the theoretical representation of the guidebook. Average agreement and Aiken’s item-content validation coefficients (V) were calculated.

Results: Expert judges reported that the guidebook achieved the desired domains for organization (95.1% agreement), writing style (91.2% agreement), appearance/design (95.1% agreement), and appeal (69.3% agreement). Medical and rehabilitation oncology practitioners supported the safety, accuracy, and feasibility of the guidebook (66.6-100% agreement). Aiken’s V were all significant at the .05 level: affective attitude (V=.91), instrumental attitude (V=.94), injunctive norms (V=.94), descriptive norms (V=.94), perceived behavioral control (V=.97), intention (V=.94), and planning (V=.94), and overall TPB (V=.94).

Conclusion: The guidebook was suitable, appropriate, and demonstrated theoretical merit for KCS. Empirical evaluation of the theoretically-based guidebook may contribute to successful behavior change in KCS. This is an attractive resource for health professionals and researchers to implement as part of the cancer care survivorship plan and PA interventions in KCS.

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RATES AND PREDICTORS OF BRCA1/2 TESTING AMONG YOUNG WOMEN FROM HEREDITARY BREAST AND OVARIAN CANCER FAMILIES

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BACKGROUND: A positive BRCA1/2 test result can provide young women from hereditary cancer families with essential information about future cancer risk. While test results can inform life planning, 5-year breast cancer risks for young women are low. Little is known about what motivates testing for young women. While the likelihood of testing should increase as women age, it might also increase with the familial burden of disease (more affected relatives and relatives diagnosed at younger ages). We predicted the likelihood of testing would increase with age and greater familial disease burden.

METHOD: Sixty-one young women (M=23 years) who were first- or second-degree relatives of BRCA1/2 carriers provided cancer family histories. Participants ages 18-30 were recruited through research registries and a national non-profit. Using logistic regression, we examined the association between self-reported receipt of BRCA1/2 genetic testing and the young woman’s age, her number of relatives affected with breast/ovarian cancer, and the age at which her youngest relative was affected.

RESULTS: Thirty-eight women (62%) received genetic testing. The odds of testing increased with each year of age (OR=1.38, 95% CI=1.07-1.79, p=.01), though the odds of testing decreased by almost half for each cancer-affected family member (OR=0.70, 95% CI=0.50-.99, p=.04). Odds decreased marginally as the age of the youngest affected relative’s age increased (OR=0.89, 95% CI=.78-1.02, p=.09).

CONCLUSION: Our results suggest a high rate of testing among young women. While our finding that the odds of testing increase with age aligns with clinical guidelines, our hypothesis regarding the effect of family history was not fully supported. This highlights a potential gap in care. We are currently assessing whether intergenerational communication processes related to cancer risk suggest a means to close this gap in future interventions.

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SEXUAL FUNCTIONING IN MEN TREATED FOR LOCALIZED PROSTATE CANCER: LONGITUDINAL CHANGES ACROSS ETHNIC GROUPS

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BACKGROUND: Prostate cancer is the most commonly diagnosed non-skin cancer among men and significantly impacts quality of life. This study evaluated the longitudinal patterns in urinary, bowel, and sexual functioning in a diverse sample of men undergoing either active treatment (AT) or active surveillance (AS) for localized prostate cancer (LPC). We hypothesized that 1) urinary, bowel, and sexual functioning would significantly decrease following active treatment for AT men, but not for AS men; and 2) that ethnic minority (H: Hispanic, AA: African American) men would have poorer outcomes than non-Hispanic white (NHW) men controlling for relevant covariates (age, time since diagnosis, comorbidities).

Method: Participants were 124 men with LPC (AT: n=62, AS: n=62) who completed the Expanded Prostate Cancer Index Composite (EPIC), at pre-treatment baseline (T1), 1 month post-treatment (T2), and 6 months post-treatment (T3). The AT group received surgery, radiation, and/or hormone therapy. The AS group completed measures at similar time intervals post-diagnosis. Separate repeated measures ANCOVAs examined EPIC scores over time by ethnic group after accounting for covariates.

Results: As expected, AT participants had significant declines in EPIC urinary (p=.002) and sexual (p=.008) summary scores while AS men had no changes over time; neither AT or AS men had significant change in bowel summary scores. For sexual summary scores, H men reported significantly poorer scores than NHW men at each time point (p=.008); there were no differences between AA & H men or between AA & NHW men. No other EPIC summary scores had significant differences by ethnic minority group after accounting for covariates. Type of AT received did not differ by ethnic minority group.

Conclusions: The results from our ethnically diverse sample confirm previous studies showing that men with LPC on AS have relatively preserved urinary, bowel, and sexual functioning over time while men on AT suffer significant treatment-related declines in urinary and sexual functioning. We also highlight important health disparities for H men on AT who reported significantly greater sexual dysfunction and bother from pre-treatment to post-treatment compared to NHW men. Future research should evaluate determinants of disparities in sexual functioning outcomes among H men.

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SOCIAL MEDIA USE AMONG BREAST CANCER SURVIVORS: A SYSTEMATIC LITERATURE REVIEW

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Social media use continues to increase, serving as an important resource and potential source of support for cancer survivors. Research exploring social media use among cancer survivors has grown, but has not been synthesized. Given its prevalence and active online presence, breast cancer was used as a case example to conduct a systematic review of social media use among cancer survivors.

Following standard guidelines, 4 scientific databases were searched for publications (2005-present). After duplicate removal, 492 articles were reviewed for manual exclusion, leaving 99 unique articles matching the inclusion criteria. Articles were coded and assessed for article type, year of publication, conditions included, study location, race/ethnicity of population, study approach, and social media platform.

Reviews/commentaries (n=13), observational studies (n=46), and intervention studies (n=40) were identified. The majority (62%) were published since 2012, and less than half (45%) focused only on breast cancer. Among the observational and intervention studies, only 35% reported race (n=30), and few (n=14) included African Americans. Data sources included surveys (n=23), direct observations (n=25), combinations of survey and direct observations (n=27), and other types (n=11). Support groups/communities (n=44) and message boards/forum (n=24) were the most commonly studied online platforms, while Twitter (n=5), Facebook (n=4), and blogs (n=3) were less commonly assessed.

Despite an active online presence, research about social media use remains fairly nascent among breast cancer survivors. A variety of data sources have been used to capture varied perspectives; however, significant opportunities remain to further explore popular platforms like Facebook and Twitter. Knowing how breast cancer survivors leverage and expand their online social networks to navigate the cancer experience can inform development of future programs. However, research in the U.S. is particularly limited among non-Caucasian survivors; thus, it is unknown how online platforms might assist survivors who are most in need of support.

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Pediatric asthma disparities persist such that racial and ethnic minority children, especially those living in low-income areas are at increased risk for poor health outcomes. Caregiver concerns related to child medications have been linked to the underutilization of preventative asthma medications; research in this area has primarily focused on Latino families, suggesting the need to consider these issues among other racial/ethnic groups. The current study extended research on families and pediatric disparities by examining associations between child asthma management self-efficacy, caregiver beliefs about medicine (e.g. concerns, necessity), child quality of life (QOL), and lung function (FEV1) in a predominately African American sample. Fifty-two children with persistent asthma (7-12 years; 61% male) and their caregivers completed a baseline research session; 68% of families lived below the poverty line. Caregivers completed a questionnaire on medication beliefs; children completed questionnaires on asthma management self-efficacy (e.g., attack prevention/management) and a measure of QOL. Children used a spirometer twice a day for 14 days. Better overall QOL was associated with higher scores on attack prevention (r=.281, p=.031) and with fewer beliefs about medication necessity (r=-.283, p=.036), after controlling for income. Higher lung function was associated with higher scores on attack prevention (r=.292, p=.031), after controlling for income. Findings suggest that children’s perceptions of their ability to prevent asthma attacks may be associated with better QOL and lung function. Interestingly, better child QOL was related to fewer caregiver beliefs about medication necessity. Our results highlight the importance of focusing on asthma-related outcomes among urban children and reduce pediatric asthma disparities.

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ASSOCIATIONS BETWEEN SELF-EFFICACY, MEDICATION BELIEFS, QUALITY OF LIFE, AND LUNG FUNCTION IN URBAN CHILDREN WITH ASTHMA

D. Jeremy Barsell, BS, Samantha A. Miadich, MA, Sohum M. Bhatt, Research Assistant, Robin S. Everhart, PhD

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NUTRITION OUTCOME EXPECTATIONS


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Among adolescent youth, rates of obesity and corresponding chronic disease disproportionately impact those living in urban settings and in lower-income neighborhoods. Overweight adolescents are far more likely to become overweight adults, suggesting that interventions focusing on healthy behaviors should begin early. Schools are an important piece of the obesity prevention; however, implementing health initiatives can be challenging due to limited time available during the school day for non-academic subjects. The purpose of this study was to evaluate the efficacy of an interactive health education initiative (PowerUp!) that was implemented into core academic classrooms. The 10-week curriculum consists of 60-minute lessons that integrate core academic skill development with nutrition learning. Each lesson focuses on the development of key life skills via participatory methods to encourage positive, adaptive behaviors among youth in the context of sustainable healthy food choices.

The study had a wait-list control group mixed-method experimental study design and took place in two demographically matched low-income public middle schools in NYC serving minority youth. Study participants were 168 sixth grade students across five classrooms (School A, n = 96 and School B, n=72). Survey data were collected at baseline (Time 1), immediately after the program was implemented in School A but not School B (Time 2), and after the program was implemented in School B, approximately three months post-participation in School A. Participants’ expected outcomes were assessed through a validated measure to determine if they thought that by eating fruits and vegetables every day, they would experience benefits. After adjustment for Time 1, there was a statistically significant difference in Time 2 between the School A and School B, F(1,103) = 5.24, p < .05. In School B, from Time 2 to Time 3, expected outcomes also increased, while in School A, the positive results were sustained.

Integrating nutrition education into core academic subjects can improve youth attitudes towards making healthier food choices as well as may reduce the barrier of limited classroom time to implement health initiatives. This integrated approach can be effective in promoting health behaviors in low-income urban children as well as improve student achievement.

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EFFICACY OF A CLASSROOM-BASED HEALTH EDUCATION INITIATIVE ON NUTRITION OUTCOME EXPECTATIONS


Teachers College Columbia University, New York, NY
A027b 6:00 PM-7:00 PM

EPIDEMIOGENETIC AND HORMONAL BIOMARKERS FOR THE IMPACT OF EARLY CHILDHOOD TRAUMA AND EFFECTIVENESS OF INTERVENTIONS
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Early childhood trauma has potential long-lasting negative consequences for both physical and mental health, and is particularly devastating to those in high-risk minority communities. Early assessment of trauma and potential negative outcomes paired with effective interventions can improve outcomes. We have brought together a multidisciplinary team of researchers from the University of New Mexico CTSI (UNM), University of Southern California and Children’s Institute, Inc. (CLI). UNM contributes biomedical expertise, USC provides social work insight, and CLI, a community agency focusing on traumatized children for over 100 years, provides access to traumatized children and their therapists. Our long-term goal is to develop an inexpensive, noninvasive biochemical test for objective measures of childhood emotional trauma, including hormonal changes measured by hair cortisol levels, and saliva DNA methylation patterns, evidence of an impact on epigenetic gene regulation. In an earlier study, we compared salivary DNA methylation patterns to post-mortem brain and found significant numbers of sites that are coordinately methylated in saliva as in brain in subjects with and without autism spectrum disorder. In this study, we found that: (1) recruitment of adequate numbers of subjects is possible through community resources; and (2) collection of biospecimens (hair and saliva) is acceptable to children and their guardians. Results of our study, to be presented for the first time in this abstract, demonstrate that traumatized children, ages 4-8, have either higher than normal or lower than normal hair cortisol levels. These levels revert to more normal levels after 20 weeks of interventions that include Trauma-focused cognitive-behavioral therapy (TF-CBT). Sufficient DNA was extracted from saliva and patterns of methylation are being analyzed and will be presented at the meeting. This study demonstrates the feasibility of using the power of biomarkers to identify the impact of emotional trauma on young children. Because children express traumatic experience differently, such biomarkers should aid in diagnosis, selection of intervention plan, and determination of intervention efficacy. Supported by UNM CTSA UL1 TR000041; NIMH 1R01 MH096093 and USC CTSA UL1 TR000130 and the Harvey Family Endowment (ELB).

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EVALUATING SKILL UPTAKE IN COMMUNICATION TRAINING FOR ONCOLOGY NURSES: TAILORED VS GENERAL STANDARDIZED PATIENT ASSESSMENT

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Background: Standardized patient assessment (SPA) is a well-established method for evaluating healthcare providers’ communication skills and an essential component of advanced communication training. The purpose of the current study was to explore differences in skill uptake between oncology nurses who completed a tailored versus general SPA scenario.

Method: Outpatient oncology nurses (N=116) completed a one-day communication skills training that included three modules: responding empathically to patients; discussing death, dying, and end-of-life goals of care; and challenging interactions with families. All nurses completed pre- and post-training SPAs. Forty eight nurses completed tailored SPAs (designed to match one of the training modules) and sixty eight completed general SPAs (a typical follow-up visit). All SPAs were video recorded and coded for the presence of 20 individual communication skills subsumed under 5 skill categories (agenda setting, checking, questioning, information organization, empathic communication). Paired sample t-tests were used to assess skill uptake pre- to post-training within each SPA condition.

Results: No significant pre- to post-training differences were noted in the general SPA group for any of the five skill categories. Only one skill (normalize) demonstrated significant improvement (p=.004). Alternatively, significant differences were observed in the tailored SPA group in the following skill categories: checking (p=.010) and information organization (p=.010). Individual skills that showed significant improvement were: declare agenda (p=.010); check understanding (p=.004); review next steps (p=.006); and normalize (p=.008).

Conclusions: While all nurses received the same intervention, findings suggest that those who completed the tailored SPA had greater skill uptake. Although future work is needed to better understand such findings, it is possible that tailored SPAs offer more opportunities for learners to use the skills targeted in the intervention and therefore represent a better method for detecting skill uptake.

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EXAMINING DIFFERENCES IN THE COMMUNICATION SKILLS TRAINING NEEDS OF ONCOLOGY FELLOWS BY DISCIPLINE

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Background: Determining the ways in which communication skills training (CST) needs vary between oncology disciplines would offer a useful approach to guide the development of tailored and, potentially, more effective interventions. The purpose of this formative assessment was to explore baseline communication skill differences by discipline among oncology fellows.

Methods: Oncology fellows (N=144) from 4 disciplines (medical, surgical, radiation, and pediatric oncology) completed a CST with pre-training standardized patient assessment (SPA). All SPAs were video recorded and coded for the presence of 20 individual communication skills subsumed under 5 categories (agenda setting, checking, questioning, information organization, and empathic communication). Chi-square and Fisher’s exact tests were used to examine between-group differences in baseline communication skills by discipline.

Results: Statistically significant differences were observed between disciplines in 7 of the 20 communication skills. Pediatric fellows were less likely to negotiate agenda (p=.02) as compared to fellows from other disciplines. Radiation oncology fellows were more likely to use checking understanding and checking preferences (p=.04, p=.02). Surgical and pediatric fellows were less likely to restate questions (p=.0004). Medical oncology fellows were less likely to endorse question asking (p=.03) and more likely to preview information (p=.002) and encourage expression of emotion (p=.04).

Conclusions: Findings suggest that baseline communication skills vary between oncology disciplines. Notable communication strengths and weaknesses were observed within discipline groups that can inform tailored CST interventions. For example, pediatric oncology fellows may benefit from CST that prioritizes advanced agenda setting skills (e.g., negotiating agenda items with patients). While additional research is warranted, these findings suggest that baseline communication skills are not equal across oncology disciplines and, therefore, CST needs vary by discipline.

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MINDFULNESS TRAINING FOR MEDICAL STUDENTS: INTRODUCING SPIRITUALITY WITH PERSONAL AWARENESS AND SELF-COMPASSION

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Background The study reviewed the outcomes of a mindfulness training offered at The University of Hong Kong. The training was provided for medical students under the “spirituality and healing” section of the new medical humanities curriculum. Apart from stress management, personal awareness and self-compassion were also emphasised.

Objective To articulate how mindfulness can be introduced as a practice to nurture spiritual wellness by promoting awareness and self-compassion in the medical training.

Research design The study was conducted between Oct 2013 (T0) and Nov 2014 (T1), involving all 216 Year 2 medical students from the new curriculum who learnt mindfulness in class and 206 students from the old curriculum who did not have the training. Students were invited for the questionnaire survey at T0 and T1. Perceived stress (PSS) and self-compassion were assessed. Individual interviews were conducted to supplement the quantitative findings.

Results Among the students who joined the mindfulness training, significant reduction was found in their perceived stress level between T0 (M=19.30, SD=4.91) and T1 (M=17.73, SD=4.91); t(133) = 3.73, p < .009. For the self-compassion level, no significant change was found among students who joined the training while it showed a significant reduction in the other group, with the mean score reduced from 3.17 (SD=0.57) to 3.00(SD=0.60); t(26)=3.01, p=.006. Students who learnt mindfulness was divided into two sub-groups. Among students who had follow up practice at home, those recognized “relax body” as a benefit of the practice had a significantly lower level of PSS t(38)=2.77, p=.009 than others who did not recogznie this effect in the same group. The qualitative study revealed the students agreed compassion is important in medical practice but most of them did not relate self-compassion as the foundation for compassion for others. Awareness of the personal physical and emotional experiences was recognized as a way for loving oneself.

Conclusion This study described how mindfulness can be introduced to medical students. Instead of alleviating stress transiently, the development of awareness was the foundation to handle stress and develop self-compassion.

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STRATEGIES TO BUILD RESILIENCY IN FAMILY MEDICINE RESIDENTS

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The prevalence of distress and burnout in medical residents is higher than medical students and practicing physicians. Residents’ responsibility for patients during high demand rotations may increase anxiety, depression, while decreasing commitment to exercise, sufficient sleep and nutrition. The impact of depression and anxiety on medical errors and career shortening is documented. Resiliency, defined colloquially as the ability to bounce back from difficult situations has 3 components: insight (awareness of strengths, weaknesses and risk factors for burnout), self care (relaxation, healthy lifestyle) and values (meaningfulness). The purpose of this study was to evaluate a pilot resiliency program for family medicine residents on measures of quality of life, burnout and resilience. The control group, located at a local family medicine residency received educational sessions. The project was approved by the IRBs at both institutions and all residents signed the consent form. The validated psychological inventories included the Connor-Davison Resilience Scale, the Professional Quality of Life Scale, the Maslach burnout Inventory. Data was collected at the beginning and end of the academic year. The program consisted of sessions on self awareness, optimal functioning, positive psychology, creating a life map, mindfulness, identifying values, time management and finding balance. Twenty four residents participated: 11 in the intervention group and 13 in the control group.

The majority at both sites are international medical school graduates. There were 13 men and 11 women of average age 34 years. There were no significant differences at pre test in scores on the psychological inventories. There were 7 dropouts. At post there were significant differences in: Emotional Exhaustion and Depersonalization from the Burnout Inventory. Intervention subjects scores were lower in both variables: EE 10.5 (5.4) vs. 21.4 (12.5); p < .021; DP 3.1 (3.3) vs. 6.6 (3.4); p < .043. There was a trend in secondary trauma stress (p < .095); intervention residents scored 19.9 (6.4) in comparison to controls 24.6 (5.0). The support of the program director, faculty and staff has been crucial to its success. The results of this pilot study are encouraging with changes occurring in the optimal direction coupled with positive evaluations. Further research is needed to refine the components of the resiliency program and increase generalizability to a larger group.

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WHAT IS CULTURALLY RESPECTFUL ONLINE CANCER EDUCATION WITH AND FOR ALASKA NATIVE PEOPLE?
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**Background:** Alaska’s village-based primary care providers - Community Health Aides and Practitioners (CHA/PS) - requested cancer information for themselves and their communities. However, Alaska’s geographic and economic challenges limit the amount of in-person education available. In response, a research team at the Alaska Native Tribal Health Consortium received an award from the National Cancer Institute to create a culturally-respectful distance-delivered cancer education course for Alaska’s CHA/PS.

**Methods:** A multi-faceted approach to exploring culturally respectful online cancer education included a focus group of ten health educators engaged in supporting Alaska Native community wellness, a Key Stakeholder Survey of Alaska’s CHA/PS (70 respondents), 12 in-depth interviews of culturally diverse individuals working with the CHA/PS, and a literature review on distance-delivered education with Alaska Native or American Indian people.

**Results:** Emerging themes include incorporating personal stories, local data and pictures, visuals, and being respectful of individual learners’ cultures. The focus group identified stories, laughter/humor, understanding the values and priorities of Alaska Native people, being respectful of learners, honoring elders, relationships, and personal stories as culturally-respectful educational practices. Survey respondents shared that local stories, pictures, and statistics, alternative/traditional healing, visuals, and respect for individual learners’ cultures would be part of a culturally-respectful online course. The key informant interviews revealed themes of visuals, digital stories, acknowledging differences in Alaska Native cultures, and personal stories of local people. Common themes from the literature review included learning through stories, examples, and activities in collaborative, community-based ways connected to place, and acknowledging differences in cultures and contexts. This multi-faceted approach provides a foundation for the online cancer education course development with, and for, Alaska Native people.

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YOUTH PSYCHOTHERAPY OUTCOMES OF A GRADUATE-LEVEL PSYCHOLOGY TRAINING CLINIC

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The lifetime prevalence of psychological disorders among youth age 13 to 18 years is 46.3%, with 21.4% meeting criteria for disorders that will lead to severe impairment in their daily life (National Institutes of Health, 2014). Psychology training clinics offer outpatient psychotherapy services to community individuals and serve as a training ground for future mental health professionals (Mueller, 2010). To date, there has been limited research on youth treatment outcomes specific to psychology training clinics. The study investigated outcome data for youth clients seen for outpatient psychotherapy services by graduate-level student therapists in a psychology training clinic in order to better understand change trajectories occurring in such settings and to examine whether services being offered are meaningful for youth clients. A sample of 169 youth psychotherapy clients who were evaluated at each psychotherapy session using the Youth-Outcome Questionnaire 2.01 (Y-OQ 2.01; Burlingame, Wells, Cox, Lambert, Latkowski, & Justice, 2005) were included in order to identify the percentage of clients who met criteria for clinically significant change, reliable improvement, no change, or deterioration in outcomes across the course of treatment. Results were that 40 clients (23.7%) demonstrated CS change, 57 clients (33.7%) demonstrated reliable improvement, 62 clients (36.7%) demonstrated no change, and 10 clients (5.9%) deteriorated. Survival analyses estimated the median effective dose needed to attain clinically significant change was 18 sessions, with 10 sessions being estimated for reliable improvement. Findings suggest services provided by graduate-level student therapists are largely commensurate with outcomes observed with youth in non-training settings. The implications of these findings for education and training, client care and clinical services, and clinic procedure and policy are discussed. Suggestions for using the Y-OQ in integrated health care settings are offered.

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A 1-YEAR SCAN OF MEDIA AND TELEVISION PROGRAMMING RELATED TO HPV AND HPV VACCINATION

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Despite the advent of a safe and effective vaccine to prevent HPV infection and related diseases, including genital warts and cervical cancer, uptake of the 3-dose HPV vaccine remains below national goals for adolescents and young adults. HPV vaccination remains a public health challenge that may be bolstered by mixed messages in televised media and television programming. As part of a National Cancer Institute (NCI)-funded administrative supplement, we initiated a 1-year scan of televised media and television programming for HPV and HPV vaccination related content using the university’s searchable, streamable television video and transcript archive, COMMTV.

From August 2014 to August 2015, 26 television channels airing in a major urban area of Kentucky were continuously monitored for mentions of “HPV.” A “hit” was defined as at least one mention of HPV in one 30-minute segment of programming. The COMMTV system provided a brief text snippet of the HPV mention along with information about the channel, date/time, and a link to the full 30-minute video segment and transcript. In addition to examining historical trends to assess alignment with major HPV news over the course of 1-year, we captured channel distribution and frequency of hits. We also analyzed the context of the HPV mention, including the show, the target audience of the programming, the tone of the HPV discussion, who was delivering and receiving the message, and other contextual variables.

Seventeen of the 26 monitored channels (65%) contained 317 HPV-related hits. The top 3 channels were: MTV (n=70, 22%), Comedy Central (n=61, 19%), and CSPAN (n=35, 11%). The most hits in one day (n=12) occurred on 2/10/15 after the release of a JAMA Internal Medicine article suggesting HPV vaccination does not promote unsafe sexual activity. The HPV mentions covered a wide range of contexts and tones, including pro- and anti-vaccination messages; discussions of vaccination safety; government paternalism; derogatory statements shaming women as HPV carriers; discussions of sexual activity; and personal testimonies from HPV-related cancer survivors.

Mixed messaging related to HPV in televised media and television programming may be contributing to the continued misunderstanding, skepticism, and stigma associated with this STI and the lack of adoption of a cancer-preventing immunization behavior.

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AN INTRODUCTION TO BAYESIAN STATISTICS IN HEALTH PSYCHOLOGY
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The aim of the current paper is to provide a brief introduction to Bayesian statistics within the field of Health Psychology. Bayesian methods are increasing in prevalence in applied fields, and they have been shown in simulation research to improve the estimation accuracy of structural equation models, latent growth curve (and mixture) models, and hierarchical linear models. Likewise, Bayesian methods can be used with small sample sizes since they do not rely on large sample theory. In this paper, we discuss several important components of Bayesian statistics as they relate to health-based inquiries. We discuss the incorporation and impact of prior knowledge into the estimation process and the different components of the analysis that should be reported in a paper. We present an example implementing Bayesian estimation in the context of blood pressure changes after participants experienced an acute stressor. We conclude with final thoughts on the implementation of Bayesian statistics in Health Psychology, including suggestions for reviewing Bayesian manuscripts and grant proposals. We also include an extensive sensitivity analysis examining the impact of priors.

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ASSESSING PROMIS MEASURES OF PHYSICAL AND BEHAVIORAL HEALTH
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Background: Patient-reported outcome (PRO) instruments have been increasingly utilized in the clinical process (Marshall, Haywood, & Fitzpatrick, 2006). Comprehensive assessments can be lengthy, so minimizing the burden in test administration should be a priority (Fitzpatrick, Davey, Buxton, & Jones, 1998). PRO use can be optimized with computerized adaptive testing (CAT) which adaptively presents items that are targeted based on patients’ function (Wainer, Dorans, Flaugher, Green, & Mislevy, 2000). The development of PROs using CAT is part of the National Institute of Health (NIH) funded initiative that developed the Patient Reported Outcomes Measurement Information System (PROMIS).

The purpose of this study was to assess the psychometric aspects of the PROMIS measures and to understand the relationship between measures of physical and behavioral health. We hypothesized that physical health is a distinct domain and correlates with behavioral health.

Method: A sample of 1,197 patients visiting an orthopaedic clinic responded to all three PROMIS CATs – Anxiety, Pain Interference and Upper Extremity Physical Function. Rasch analysis was utilized to examine psychometric characteristics and Pearson correlations were conducted to examine the relationship between these measures of physical and behavioral health.

Results: The PROMIS upper extremity physical function demonstrated adequate unidimensionality, local independence, reliabilities and fit. There were significant associations between physical function and anxiety ($r=-0.48; p < 0.0001$), and between physical function and pain interference ($r=-0.65; p < 0.0001$). The average time for administrating the CAT was under one minute for each assessment.

Conclusion: Use of CAT instruments can improve comprehensive assessment of physical and behavioral health issues by reducing testing time without compromising the quality of clinical information. The PROMIS measurement tools assess independent subdomains providing unique and useful clinical information with minimal test burden.

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FAMILY PROCESS FACTORS PROVIDERS ASSOCIATE WITH ABERRANT MEDICATION-RELATED BEHAVIOR IN ADOLESCENTS WITH CHRONIC PAIN

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Family process describes one’s behavior or interaction with family members; for example, communication style or level of parental involvement (Lam, 1997). To inform the development of a new screener, we conducted one-hour telephone interviews with a small, convenience sample of pediatric providers (N = 13) to learn what factors they associate with aberrant medication-related behavior (AMRB) in families of adolescents prescribed opioids for chronic pain. Here we report findings about family process factors (FPFs) identified during these interviews.

Participants were pediatric providers from four disciplines (nursing, medicine, psychology, and pharmacy) who had at least five years of experience. Interviews included questions about what family characteristics and behaviors the providers associated with elevated AMRB risk. 168 concepts, or statements, were extracted from the interviews, of which 55 (32.7%) were identified as FPF-related. The FPF-related statements were coded inductively and organized into eight thematic categories.

The FPF-related categories mentioned by the highest number of providers were: atypically high parent involvement in adolescent life (e.g., over-involved and demanding parents) (n = 7 providers) and parents’ controlling behavior (n = 6), followed by chaotic family environment, lack of boundaries in parent-child relationship, and parents not enforcing rules or discipline (all n’s = 5). The four psychologists made the highest proportion of FPF statements in relation to the total number of statements they generated (41.5%), followed by the one pharmacist (35.7%). The lowest percentages of FPF comments were provided by the five nurse practitioners (28.8% total) and three physicians (27.8% total).

This study provides preliminary evidence that 1) pediatric providers recognize specific types of FPFs to be associated with AMRB; and 2) psychologists identify more FPFs with AMRB than other disciplines. Future studies are required to determine if specific FPFs are reliable predictors are AMRB in families of adolescents prescribed opioids for chronic pain.

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PREDICTORS OF IDEAL WEIGHT LOSS GOALS IN COLLEGE STUDENTS

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Research suggests that most dieters establish unrealistic weight loss goals that often surpass the 5-15% weight loss that is reasonably expected via non-surgical weight loss interventions (Wadden et al., 2003). However, much of this research has focused on middle-aged women enrolled in behavioral and/or pharmacological weight loss programs; therefore, the generalizability to college-aged students is unknown. There is some evidence to suggest that college students may be more realistic in their weight goals compared to older adults (Anderson et al., 2003). The purpose of this study was to a) examine the ideal weight goals of college men and women, and b) investigate whether ideal weight loss goals were influenced by psychological and eating behavior variables. Participants consisted of 250 college students who completed the Binge Eating Scale, the Center for Epidemiologic Studies – Depression Scale, and the Three Factor Eating Questionnaire and also self-reported their current and ideal weights. Results indicated that nearly 65% (128 women, 24 men) reported an ideal weight that was less than their current weight, with a mean desired weight loss of 8.9%. Sixteen percent of the sample indicated an ideal weight that was the same as their current weight, and 19% reported an ideal weight that was higher than their current weight. Two separate linear regression analyses were conducted to independently examine the influence of psychological and eating behavior variables on ideal weight goals in those individuals whose ideal weight was less than their current weight. A regression analysis exploring the influence of psychological variables (binge eating and depressive symptoms) revealed that body mass index (Beta = .426) and binge eating (Beta = .165) were significant predictors of ideal weight loss goals. A second regression analysis exploring the influence of eating behaviors indicated that disinhibition (Beta = .319) and hunger (Beta = -.461) were significant predictors of ideal weight loss goals. These results suggest that college students’ ideal weight loss goals may be more realistic compared to those of older adults and may be influenced in particular by behaviors related to binge eating/disinhibition. Better understanding the unique predictors of weight loss goals in this population will aid in more effective outreach efforts aimed at promoting realistic dieting expectancies.

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Emerging adults (EA, 18-25 years) experience high rates of overweight/obesity, as well as elevated stress and depression levels. These psychological factors might impede weight loss efforts, yet little is known about their presentation among treatment-seeking EA. Live Well RVA was a lifestyle intervention designed specifically for EA with overweight/obesity. Participants were recruited from the community and self-referred for treatment. The primary purposes of this analysis are to: 1) describe the psychosocial characteristics of those EA presenting for this treatment program (i.e., motivation, depression, and stress), and 2) examine relations among these variables to inform future treatment engagement and response. Findings will be discussed in the context of intervention targets in EA seeking weight loss treatment, particularly in those with high rates of controlled motivation which may itself interfere with treatment engagement and response. Findings will be discussed in the context of developing comprehensive lifestyle intervention approaches for obesity treatment in this high-risk population.

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RELATIONS BETWEEN FIBER INTAKE AND BODY MASS INDEX AMONG AFRICAN-AMERICAN WOMEN PARTICIPATING IN A RANDOMIZED WEIGHT LOSS TRIAL

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Epidemiological data suggests that a diet high in fiber may prevent excessive weight gain. However, results from clinical intervention trials have yielded mixed findings. The generalizability of previous research has been limited by predominately White samples. African-American women are at increased risk for obesity, and therefore it is important to identify dietary factors that prevent weight gain within this population. The Obesity Reduction Black Intervention Trial (ORBIT) was a randomized controlled weight loss and weight maintenance trial for obese African-American women. As part of the intervention, participants were encouraged to adopt a low-fat, high-fiber diet with increased fruit and vegetable consumption and decreased caloric intake. The purpose of the current study was to examine relations between daily fiber intake and BMI over time. Our analysis was restricted to women randomized to the weight loss intervention group (n = 107; age M = 46, SD = 8.4; baseline BMI M = 39, SD = 5.5). Anthropometric measures and the Block Food Frequency Questionnaire (1998) were administered at each time point: baseline, 6-month, and 18-month follow-up. A mixed-effects linear regression model with random intercept and time slope was used to model associations between fiber consumption and BMI controlling for time, dietary quality, and caloric intake. Relations between fiber consumption and BMI were significantly different across time points (βFiber*Time = -0.195, p = 0.002). There was no association between fiber intake and BMI at baseline; however, there was a significant inverse relation between fiber consumption and BMI at 6 months, and an even stronger significant inverse relationship at 18 months. Despite the increase in fiber consumption over time, mean fiber intake fell below the recommended 25 grams/day at all three time points (baseline M = 8.7 grams, SD = 3.49; 6 month M = 10.58 grams, SD = 3.89; 18 month M = 10.59 grams, SD = 4.22). Results from this study suggest that targeting increased fiber intake may be particularly important within weight loss interventions tailored for African-American women.

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RELATIONSHIP BETWEEN FOOD ADDICTION AND QUALITY OF LIFE IN OBSESE PERSONS SEEKING WEIGHT LOSS TREATMENT

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Purpose: Accumulating neurobiological evidence supports the construct of food addiction, yet there has been little examination of the association between food addiction and psychosocial functioning. Surprisingly, elphia, PA, 19104; arichao@nursing.upenn.edu

SOCIAL INFLUENCES ON EATING AND PHYSICAL ACTIVITY BEHAVIORS OF LOW-INCOME, URBAN, AFRICAN AMERICAN YOUTH

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Social factors can influence youths’ eating and physical activity behaviors; however, the best strategies for intervening in the social environment are unknown. This research was conducted as a sub-study of the B’More Healthy Communities for Kids obesity prevention intervention being conducted in Baltimore City, MD. A convergent parallel mixed methods design was used to explore the social roles that low-income, urban, minority youth have around eating and physical activity to identify potential intervention targets. Data were collected from 297 youth (53% female, 91% African American, mean age 12.3+1.5 years) using a structured questionnaire combined with semi-structured in-depth interviews from 38 youth (42% female, and 97% African American, mean age 11.4+1.5 years) and 10 parents (80% female, and 100% African American).

Results identified that parents have multiple, dynamic roles in influencing youths’ eating and activity behaviors. Waid post estimation tests used to assess questionnaire results indicated that youth reported parents as being significantly (p < 0.05) more likely than any other relationship (i.e., peers, teachers) to be supportive of health behavior change. In interviews this support was operationalized as creating health-promoting rules, managing the home food environment, and serving as a role model for physical activity in youth. Other social contacts had specific, but limited, roles. For example, friends served as partners for physical activity, and aunts provided exposure to novel foods. These results suggest that obesity prevention programs should be aware of perceived social roles when designing interventions. Future studies should explore the impact of incorporating the most credible social actors in different behavioral domains to elicit behavior change, such as partnering youth with their friends to enhance physical activity promotion.

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SOCIAL RELATIONSHIPS AND THE FRESHMAN 15

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Female college students gain an average of 2 kilograms their first year in college. Among the reasons for the weight gain may be the stress associated with the formation of new social dominance hierarchies. Carol Shively and colleagues have shown that social dominance predicts morphological changes in female primates. Specifically, socially dominant females remain slender while subordinate status is associated with central adiposity. Project Freshman 15 was designed to assess the trajectory of social relationships and weight gain during the first semester of college. Freshmen college students (N=49, 81.6% Caucasian) were assessed within the first month of college (T1), midterm (T2), and during the last two weeks of the fall semester (T3). During that time, these students gained an average of 1.51 kg (SD=5.41), t=-1.789, p=.08. Although social relationships did not predict waist-to-hip ratio (WHR) or changes in WHR, T3 Social Dominance (SD, measured by a subscale of the Resource Control Strategy Inventory) was a significant correlate of BMI (r = -.41). T2 predictors of SD included Social Support (SS: Interpersonal Support Evaluation List), r=.51 and Perceived Stress (PSS: Perceived Stress Scale) r = -.31. Interestingly, T1 BMI predicted of T3 SD r = -.28, p=.08. Limitations to these data include the small sample size, ethnic homogeneity, and short time frame (single semester). Changes in WHR may not be detectable in a semester’s timeframe. Nonetheless, these data suggest that social status may affect body morphology in both human and non-human female primates. However, in human primates the relationship may be bidirectional. In human females, BMI may be both a predictor of social dominance and an outcome that is related to metabolic changes associated with stress and (lack) of social support.

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SPOUSAL SOCIAL SUPPORT IN BEHAVIORAL WEIGHT LOSS

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Introduction: Though behavioral weight loss (BWL) is the current gold-standard treatment, weight regain is common. Social support is important, continuing past treatment. Research has shown that social support relates to better health and well-being in medical treatments. In BWL, support from family relates to weight loss, though it is unclear whether perceived support from one’s significant other (SO) specifically is predictive of an individual’s weight loss. The current study examined whether living with a SO and perceived support from one’s SO predicted weight loss in BWL. We hypothesized living with a SO and reporting high support from one’s SO would predict weight loss. We predicted weight loss in an overweight SO during treatment would be associated with greater support and weight loss in BWL participants.

Method: Overweight adults (n=190) received 25 group BWL treatment sessions in a 1-year period. Participants completed the Family Weight Inventory self-report measure of family relationship, weight, shape, and support in their household at 6-months and 12-months.

Results: Linear regression analyses revealed that living with a SO marginally predicted greater participant weight loss (F=3.65, p=.06). Perceived support from one’s SO positively predicted participant weight loss, (F=7.17, p < 0.01). Further, SO weight loss predicted participant weight loss (F=7.464, p=.001), such that participants with an overweight SO who lost weight, lost significantly more weight themselves than participants with an overweight SO who did not lose weight (F=5.19, p=.03).

Discussion: Results suggest that social support from a SO is predictive of success in BWL. The presence of a SO in the household predicts greater weight loss, particularly among those who have an overweight SO who also lost weight. These results are consistent with previous findings showing a strong association between social support and better health outcomes. Limitations of the current investigation include reliance on self-report measures of SO’s weight and support. However, the current findings suggest that social support from SOs could be a powerful intervention tool. Participants’ SOs may benefit from psychoeducation on how to best offer support, while people who do not have the support of a SO in their household may benefit from more focused attention and psychoeducation on building social support.

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TESTING A TECHNOLOGY-ASSISTED WEIGHT MANAGEMENT AND GOAL SETTING TOOL AMONG VETERANS IN PRIMARY CARE: A USABILITY STUDY
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Background: Veterans Affairs Medical Centers offer MOVE!, an intensive weight management program that uses MOVE!11, an intake survey, to evaluate current behaviors and give tailored advice and handouts. However, we have found that the MOVE!11 does not promote goal setting for behavior change. We created MOVE! Toward Your Goals (MTG), a new tool based on MOVE!11 to facilitate goal setting and weight management counseling as part of a larger PC-based intervention. We conducted usability testing to evaluate its utility and inform improvements.

Methods: This was a pilot study of 16 SMW recruited from a rural Southeast region. Participants completed a self-report questionnaire including perceived stress, minority stress, and social resistance and provided two days of salivary cortisol. Descriptive statistics were calculated on each measure. Where possible, outcomes were compared to published norms. Bivariate analyses were calculated between all variables.

Results: Compared to published norms, rural SMW reported mean perceived stress ($x_{\bar{}} = 10.43$) 2.37 times greater than whites and 2.04 times greater than racial minorities. Minority stress was less across most subscales for rural SMW; however, vicarious trauma was 3% higher. Social resistance was 41% greater for rural SMW than whites and 20% greater than racial minorities. Average cortisol levels were similar to published norms.

Cortisol was positively correlated with perceived stress ($r = .65, p < .05$). Vigilance was negatively correlated with perceived stress ($r = -.55, p = .06$). Vicarious trauma and discrimination were both correlated with social resistance ($r = -.69, p < .01$ and $r = -.60, p < .05$).

Discussion: In addition to minority stress, SMW in rural Eastern Tennessee report increased perceived stress and social resistance, which may explain unhealthy weight, weight-related behaviors and attitudes. Future research should use larger samples and rigorous designs with rural SMW to examine relationships between minority stress, perceived stress, cortisol, and social resistance with the intent to understand mechanisms impacting weight disparities.

Conclusions: Usability data obtained from this study were used to make iterative changes to the MTG tool for a pilot randomized controlled study of the MTG intervention. Future studies will also test usability of the MTG tool in non-Veterans to inform tailoring for specific populations.

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A062a 6:00 PM-7:00 PM

THE EFFECT OF WEIGHT LOSS METHOD ON POTENTIAL MATE VALUE
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Background: Weight bias and discrimination are prevalent against the overweight and obese individuals in today's society. Bias is experienced from the doctor's office to the workplace and also in interpersonal relationships. Even after weight loss, individuals may be discriminated based on their method of weight loss. The current study examined whether weight loss by diet and exercise, diet pills, or bariatric surgery is related to potential mate value of a previously obese individual.

Methods: College students (N = 535; 71% female; 75.3% white; mean BMI= 25.5 + 5.8 kg/m²) were recruited through a psychology participant pool at a large southeastern university. The participants were provided with a vignette of two images of a member of the opposite sex: one as obese before weight loss and the other at normal weight after weight loss. The participants evaluated the potential mate value of the “model” presented in the vignette for both pre- and post-weight loss and were informed of the model’s weight loss method (diet and exercise, diet pills, or bariatric surgery).

Results: A one-way repeated measures ANOVA was conducted to compare the effect of weight loss method on potential mate value in diet and exercise, diet pills, and bariatric surgery conditions. An interaction effect was found for potential mate value for male participants, F(2, 72) = 6.397, p = .003, indicating that men rated the female model who lost weight via bariatric surgery as having significantly less potential mate value than the female model who lost weight through diet and exercise or weight loss pills. There was a similar interaction for female participants, F(2, 187) = 13.133, p < .001, such that women viewed the male models who lost weight with diet and exercise as having higher potential mate value than the male models who lost weight via surgery and diet pills.

Conclusion: The findings suggest that there is greater discrimination toward a surgery-induced weight loss for both genders, relative to diet and exercise-induced weight loss. Men had more favorable attitudes toward diet pill-induced weight loss than women.

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A064a 6:00 PM-7:00 PM

THE IMPACT OF ATTACHMENT ON EATING BEHAVIOR AND BODY MASS INDEX IN YOUNG ADULTS
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It is well known that obesity is a significant and growing problem. Many potential factors have been identified which may contribute to development and maintenance of obesity. Recent research has begun to examine the role of attachment on development of obesity, and has generally indicated that insecure relationships with caregivers are linked to childhood obesity (Anderson, Gooze, Lemeshow, & Whitaker, 2012; Bahrami et al, 2013; Mazzeschi et al, 2014) and response to treatment (Pott, Albayrak, Hebebrand, & Pauli-Pott, 2009). While few studies have examine the role of attachment on obesity in adults, insecure attachment has been linked to consumption of high-caloric foods (Faber & Dube, 2015) and metabolic syndrome (Davis et al, 2014), which are both related to obesity. This study examines the relationship between attachment, binge eating, and obesity in a young adult population. Participants were 491 college students who completed a series of questionnaires as part of a larger study, as well as having height (cm) and weight (kg) recorded to calculate body mass index (BMI). Regression was used to evaluate a proposed model in which binge eating would partially mediate the relationship between attachment and BMI. Results supported this model, suggesting that secure attachment to parents inversely predicts BMI (F=7.15, p < .02) such that individuals with lower levels of secure attachment have higher BMI and this relationship is partially mediated by binge eating (Sobel z=2.94, p < .003). These results may provide guidance for clinicians regarding a relevant clinical issue influencing both eating behavior and obesity as well as a possible direction for treatment.

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A064b 6:00 PM-7:00 PM
THE IMPACT OF THE HEALTHY CHILDREN, HEALTHY FAMILIES CURRICULUM ON MATERNAL FEEDING PRACTICES
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The Impact of the Healthy Children, Healthy Families Curriculum on Maternal Feeding Practices

Introduction: Mothers shape their child’s eating habits through their feeding practices, such as role modeling, involvement, and encouragement for eating a balanced and varied diet. The Healthy Children, Healthy Families (HCHF) curriculum has been shown to improve health behaviors, however it’s impact on feeding practices has yet to be assessed. This study assessed the impact of the evidence-based HCHF curriculum on changes in supportive feeding practices using a non-experimental pre/post design.

Methods: Primarily mothers (n=32) completed an 8-week group based intervention. Mothers completed self-administered surveys pre-post; feeding practices were assessed using the Comprehensive Feeding Practices Questionnaire and diet and activity behaviors were assessed using the HCHF 16-item behavior checklist (responses on a scale from 1-5, 1 once in a while- 5 every day). Descriptive statistics and Wilcoxon Signed Rank tests were run.

Results: Mothers were on average 39 yrs, were Hispanic/Latino, and 27(84%) were not born in the U.S. Post intervention, mothers reported increased use of supportive feeding practices including encouragement of balance and variety (4.6±0.4 pre, 5.0±0.0 post; p

Discussion: This intervention successfully improved important supportive parent feeding practices, and both parent and child vegetable intake and physical activity behaviors. These results demonstrate that community-based delivery of the HCHF curriculum is both feasible and effective in improving feeding practices as well as behaviors that contribute to childhood obesity.

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A068a 6:00 PM-7:00 PM
TRACIT: COMPARISON OF DIETARY SELF-MONITORING ADHERENCE USING TARGETED VS. TRADITIONAL MONITORING IN YOUNG ADULTS
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Background: Dietary monitoring is a key predictor of weight loss success; however, monitoring adherence has been shown to decline overtime. Targeted dietary monitoring focused on a limited number of foods most linked to weight change might reduce burden and therefore increase monitoring adherence in young adults. Additionally, little is understood about predictors of monitoring adherence in young adult populations.

Methods: Participants were randomly assigned to monitor nutrition for 1 month with mobile phone applications using 1) traditional monitoring with MyFitnessPal (MFP) or 2) targeted monitoring with TRACIT. Group means for monitoring frequency were compared and predictors of monitoring frequency from baseline demographics, caloric intake, Big Five personality traits and post-test ratings of monitoring time-burden were analyzed.

Results: 52 overweight females interested in weight loss (Mean age: 20.73, Mean BMI: 31.5) participated in 1 month of nutrition monitoring with mobile apps (MFP = 27, TRACIT = 26). Participants monitored an average of 19.4 days and no significant differences were found in monitoring between MFP and TRACIT. No baseline variables were found to be predictive of monitoring frequency. At post-test, TRACIT (M = 1.6, SD = .94) was rated as significantly less time-consuming than MFP (M = 2.26, SD = 1.06) (t(51) = 2.02, p = .032; however, these ratings were not predictive of monitoring frequency.

Conclusions: In young adults, demographic information, average caloric intake and personality variables do not appear to be predictive of nutrition monitoring frequency. While targeted monitoring (TRACIT) was perceived as less time-consuming than traditional monitoring, perception of time burden was also not related to monitoring frequency. Future research is needed to determine mechanisms behind monitoring adherence for young adults.

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WEB-BASED FAMILY INTERVENTION PROGRAM FOR OVERWEIGHT CHILDREN

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Background and Objective: Childhood obesity is of great public health significance. Evidence-based interventions are available, but a major barrier is access to effective treatment. A key issue is how to provide effective treatment to the population of overweight children. Pediatricians may provide greater access to such treatment. We developed a web-based family intervention that pediatricians could refer families to after they diagnosed children as being overweight. The program was designed to increase skills of children and parents to have healthy lifestyles through video models, interactive gaming, self-monitoring and goal-setting. We report here on the outcomes of a RCT testing the efficacy of the web-based program; the control condition was a non-interactive website with information about child obesity.

Method: Families were recruited from four primary care pediatric offices. Eligibility included children being overweight, 8-12 years-old, parents and children speaking and writing English, and families having a high-speed internet connection. Mixed-model 2 x 3 ANOVAs for repeated measures (baseline, 3 and 6 months), was used for the primary outcome, z-BMI, and secondary outcomes (healthy eating, physical activity, and foods kept in the home).

Results: 223 families were referred to the study, but only 65 families completed baseline surveys and were randomized, with 34 assigned to the interactive program and 31 to the control condition; this study sample represented 29% of all families referred by the pediatric offices. About half of all parents and children did not log in to the program over the course of the study, and about half completed all study assessment procedures; high consumer satisfaction ratings were reported for those who did. Results indicated significant (p < .003) time effects for reductions in z-BMI, sedentary behavior, and unhealthy foods kept at home, but there were no differences between the groups.

Conclusion: Recruitment in pediatric offices for an internet treatment study of overweight children is challenging, and many parents do not follow physician recommendations to initiate treatment. These results suggest that web-based programs may improve outcomes in overweight children, but these findings are limited due to the significant attrition observed and the fact that many families did not utilize the program.

SOCIAL MEDIA REACH FOR A CAMPAIGN TO PROMOTE ACTIVE TRAVEL TO A UNIVERSITY CAMPUS

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Background: Promoting regular physical activity as recommended by the World Health Organization can be challenging. Active travel (AT), walking and biking for transportation, is a way to achieve more activity, but rates remain low in the United States. With increased technology use, social media is one way to reach thousands of people to share the message of the importance of exercise. The purpose of this study was to describe the reach of social media in a campaign to promote AT to a university campus. Methods: The Active Lions campaign promoted AT to and on campus for employees and students. The campaign included local events promoting AT, a smartphone app, and social media postings (Facebook, Twitter) from August 2014 to August 2015. The social media postings included different types of messages about AT. These posts were then examined and categorized, and any responses or interactions were also recorded. The trends were analyzed to determine which posts were most engaging and had the greatest reach. Results: The Active Lions Facebook page had 177 followers during the study period with educational posts (e.g. providing information about AT) elicited the most responses, 137 interactions; interactive postings (e.g. posing questions, asking for feedback), had the second greatest activity, 81 interactions; and promotional posts (e.g. promoting AT or a related event) generated 55 interactions. Posts with pictures averaged 6 clicks and 1 like and posts with links averaged 3 clicks and 1 like. Activity recorded did not change over the course of the year. Active Lions had 103 Twitter followers and similar to Facebook, educational posts on Twitter had the most activity, with 149 interactions; “Fun-fact” accumulated 36 interactions, interactive postings garnered 30 total interactions. Most of the activity data collected occurred during the first five months. Conclusion: Different types of Facebook and Twitter postings have different reach and interactive potential for promoting AT; providing educational messages appears to be a worthwhile strategy. The current study examined methods of reaching a university-based population with messages about AT, indicating that social media may be effective but not a standalone tool for changing AT participation.

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THE AEROBIC & COGNITIVE EXERCISE STUDY (ACES) FOR OLDER ADULTS WITH MCI: NEUROPSYCHOLOGICAL EFFECTS OF A BOUT OF EXERGAMING

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Objective: Exergaming (interactive virtual reality enhanced aerobic exercise), has been found to yield greater cognitive benefit than exercise alone for older adults (Anderson-Hanley et al., 2012). ACES is an ongoing RCT which aims to replicate and extend that finding in patients with MCI. Theoretically, the added cognitive stimulation of an exergame may enhance neuropsychological benefit, perhaps through synergistic activation of physiological and neuronal pathways. We hypothesized that an exergame with greater cognitive challenge could yield more benefit than one with lesser cognitive challenge.

Participants and Methods: Older adults with MCI (n=27) were recruited to use a virtual reality enhanced stationary bike. Participants were randomized to a 20-min single bout of: (1) lesser cognitive challenge exergaming (exer-tour; pedaling and steering along a scenic virtual bike tour), (2) high cognitive challenge exergaming (exer-score; pedaling and steering through a videogame), or (3) game only (sedentary play of the videogame). Tests of executive function were administered pre- and post-bout (Color Trails, Stroop & Digit Span).

Results: Following a single bout, the exer-tour yielded significantly greater improvement in executive function (Color Trails) than the exer-score condition (p = .04); both groups exerted equivalent physical effort (no significant difference in heart rate).

Conclusions: Participants with MCI improved more after a single bout of low cognitive challenge than after a high cognitive challenge exergame. The steeper learning curve of the videogame may have hindered the ability to maximize benefits, as patients first had to learn how to play the game. The bike tour is easier to navigate and may allow subjects to more readily engage with the cognitive stimulation, leading to sufficient physiological and neuronal activation to derive cognitive benefit. Future research will examine longer-term use of the high cognitive challenge exergame to see if it eventually yields more benefit, once the player has time to master the mechanics of the game.

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THE ASSOCIATION BETWEEN ACCULTURATION AND PHYSICAL ACTIVITY AMONG LOW ACTIVE LATINA WOMEN

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Background: Latinas have disproportionate rates of physical inactivity-related chronic diseases. Acculturation is a socio-cultural construct associated with Latinas’ physical activity (PA). The purpose of this study is to examine the associations of acculturation with accelerometer-measured moderate and vigorous PA (MVPA) and self-reported domain-specific PA among low active Latinas.

Methods: This study included 436 churchgoing Latinas who self-reported as low active and accumulated less than 250 min/wk of accelerometer-measured MVPA. Participants completed a survey on demographics and domain-specific PA and wore an accelerometer for one week. High acculturation (HA) was defined as those participants who had an average score ≥2.5 on the non-Hispanic domain of the Bi-dimensional Acculturation Scale for Hispanics and low acculturation (LA) are those with a score < 2.5. Differences in domain-specific PA by acculturation status were assessed with chi-squared tests. Regression analyses were conducted to determine associations between acculturation and MVPA.

Results: About 26% of the sample was classified as HA. HA participants were significantly less likely than LA participants to report any occupational (52% vs. 65%, p < 0.05) or transportation PA (36% vs. 25%, p < 0.05), but there were no differences between groups for leisure and household PA. In addition, HA participants had significantly less accelerometer-measured MVPA than the LA group (M±SD=89.8±7.2 vs. 109.0±5.5 min/wk; p < 0.01) and were less likely to accumulate 150 minutes of accelerometer-measured MVPA (OR=0.37; 95% CI=0.21, 0.67; p < 0.01) than LA participants after adjustment for sociodemographic variables.

Conclusion: Compared to LA Latinas, HA Latinas had lower accelerometer-measured MVPA, which may be due to lower prevalence of transportation and occupational PA among HA Latinas.

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THE HEARTY TRIAL: AUTONOMY SUPPORT AND SELF-DETERMINED MOTIVATION PREDICT FITNESS IN OBESE YOUTH

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Purpose: The high prevalence of obesity and physical inactivity in youth has dramatically increased, leading to more health-related problems in adulthood. Despite the known benefits of physical activity, Canadian youth are mainly sedentary, and so efforts to determine what motivates youth to exercise are warranted. The purpose of this study was to examine motivation to exercise in overweight youth using the framework of self-determination theory (SDT).

Methods: Overweight youth (n = 228) from the Healthy Eating, Aerobic and Resistance Training in Youth (HEARTY) randomized controlled exercise trial participated in this study. Participants completed measures of SDT constructs (i.e., perceived autonomy support and motivational regulations) at 3 months after trial enrollment (i.e., SCQ & BREQ-2). Aerobic fitness (VO2 peak) was measured using a maximal treadmill test and metabolic cart and strength was measured with an 8-repetition maximum test (bench and leg presses) at baseline and at trial completion (6 months).

Results: There were no group differences for the motivational and support variables. For females, higher autonomy support at 3 months predicted greater aerobic fitness at 6 months and this was mediated by intrinsic motivation to exercise (standardized indirect coefficient = .13, 95% CI = .04, .22). For males, autonomy support was associated with higher self-regulation (i.e., identified regulation; β = .38, p < .05) but not with aerobic fitness. For both strength measures, autonomy support predicted increased identified regulation (β = .38) and intrinsic motivation to exercise (β = .28) in the overall sample but did not predict bench or leg press results.

Conclusions: Autonomy support may improve intrinsic motivation to exercise and increase aerobic fitness levels in youth with obesity. These results support the use of SDT in the context of youth engagement in physical activity.

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A091a 6:00 PM-7:00 PM
THE NEW TV DINNER: MEDIA EFFECTS ON EXERCISE AND EATING
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Television is a potentially powerful context for health behavior change; American adults watch a mean 2.8 hours of television per day. Berry et al. (2013) showed that depictions of intense exercise on the reality television show, The Biggest Loser, negatively biased individuals' explicit but not implicit attitudes towards exercise. There is also evidence that exposure to exercise cues can also induce people to eat more, an effect hypothesized to resemble compensatory eating in response to the cues of exercise rather than actual exercise (Albarracin et al., 2009). The purpose of the current study was to extend these findings by further manipulating the type of exercise content shown to participants and by including an eating outcome. We randomized 102 young adults to one of three video conditions: (1) Biggest Loser (replicating what was shown by Berry et al., 2013), an alternative extreme-exercise show (The Challenge) that depicts in-shape individuals, and (3) a non-exercise control video (American Idol). Following viewing of the clips, participants were administered a taste test to identify calories consumed, explicit and implicit measures of attitudes toward exercise, and a body mass index (BMI) assessment. We found significant main effects for both BMI status (F = 4.77, p = .03) and condition (F = 5.46, p = .006) on total calories consumed in the taste test. Those with higher BMI consumed more calories. As predicted, individuals watching high intensity exercise in the form of The Challenge ate more, reflecting an apparent compensatory eating effect. Trends in our data suggested that the depiction of overweight individuals undergoing challenging exercise reduced eating behavior beyond that of the non-exercise video, suggesting that overweight status trumped exercise cues in terms of having effects on eating behavior. Additional research is needed on the characteristics of exercise TV shows that induce eating, but the present research suggests that beneficial health behaviors may be derailed by some of the 2.8 hours of programming received by many Americans on a daily basis.

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A093a 6:00 PM-7:00 PM
TRENDS IN PHYSICAL ACTIVITY AMONG OLDER ADULTS
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To assess progress and inform policy decisions about physical activity (PA) among older adults (65+ y), it is important to assess trends in PA over time within relevant sub-groups including by gender, race/ethnicity, age and functional status. This study examined the proportion of older adults meeting current physical activity guidelines (PAG) with data from the National Health Interview Survey from 1998-2013.

Methods: Self-reported PA was categorized as inactive or meeting PAG (150min/wk of moderate and/or 75 min/wk vigorous PA). Participants were stratified by age (65-74y, 75-84y, 85+y), gender (M/F), race/ethnicity (Non-Hispanic [NH] White, NH-Black, or Hispanic), and functional limitation status (yes/no). The interaction between strata (e.g., gender) and continuous survey year was tested by logistic regression models that adjusted for age, race and gender. Predicted margins were computed in stratified models with sample weights to obtain adjusted estimates by year.

Results: The proportion of older adults who met PAG increased from 25.7% in 1998 to 35.4% in 2013 (Pint int >0.05). In 2013, more NH-Whites met PAG than NH-Blacks and Hispanics. NH-Blacks increased PAG adherence faster (1998 to 2013: 13.8 to 27.0%) than NH-Whites (26.6 to 35.5%), but trends were similar for Hispanics and NH-Whites. Those reporting functional limitations had significantly smaller increase in PAG adherence (19.3 to 23.5%) compared to those without limitations (34.7 to 49.7%).

Conclusions. Over the 15-yr period PAG adherence increased, but only one-third of older adults reported meeting PAG in 2013. Women and NH-Blacks increased PAG adherence at a faster rate than men and NH-Whites, but disparities in PA persisted over time among women, NH-Blacks, Hispanics and those with functional limitations. Effective interventions are needed to increase PAG adherence, to prevent age-related declines, and reduce disparities in PA among older adults.

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A099a 6:00 PM-7:00 PM

BEHAVIORAL HEALTH PROFESSIONALS (BHP) TRAINING GAPS AND RELATED INTEGRATED PRIMARY CARE PRACTICE

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There is a recognized need to develop the behavioral health workforce in primary care settings. Developing this workforce requires formal training initiatives. Understanding the training experiences and practices of the current primary care workforce will help inform specific training for BHPs in integrated primary care (IPC). This study evaluated the IPC training and practice experiences of 233 BHPs working in primary care. Of these, 178 were licensed (76.4% PhDs) and 47 were working towards their license. 23.2% reported having no IPC specific training, despite 66.1% of the sample having training in behavioral medicine. Of those with IPC training, the majority reported training occurred during professional practice (40.8%); others reported training during graduate school (31.8%), doctoral internship (35.2%), and post-doctoral training (33.9%). Specific types of training reported included only 18% reported completing a practica in IPC, whereas 31.3% reported an internship rotation in IPC and 28.3% reported post doc training in IPC. Other training included didactics related to IPC (24.9%), conference training (23.2%), and in-vivo shadowing (27.5%). Of importance, only 2.6% have any training in healthcare economics, 22.7% in psychopharmacology and 6% in pharmacology, and 6% completed a certificate program in IPC. More importantly, regarding current practices, most in primary care settings are not practicing in an integrated manner. Only 40.8% reported that a typical patient session lasts 15-30 minutes in current practice and only 22.3% reported developing one treatment plan collaboratively with medical providers, despite the fact that 72.5% reported using a shared medical record. Additionally, only 54.9% reported that clients are introduced to them by medical providers throughout the day and only 57.1% reported conducting clinical training for medical staff on behavioral health care. We will discuss the factors accounting for lack of integration in primary care and how the results can inform specific training in integrated primary care.

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A099b 6:00 PM-7:00 PM

CHALLENGES TO PROVIDING AND ACCESSING INTEGRATED CARE

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Integrated care aims to increase access to behavioral health (BH) services by removing system and patient barriers in the medical setting. However, this model has its own challenges for patients, providers, and practice financial models. This abstract highlights some challenges to integrated care and offers possible solutions to these struggles. In the 1st year of BH integration using a hybrid co-located/integrated model in 2 family medicine residency clinics that employ 2 BH specialists, 648 adults were referred for treatment. Despite the advantages of integrated care, only 14% were seen for a billable BH visit at the time of their medical visit and were instead scheduled for follow-up. 85% of those referred were scheduled, and of those scheduled, 60% were seen for an initial intake. Fisher’s exact tests revealed no significant differences in follow through with referral based on BH provider, warm hand-off, or same-day access. Primary barriers to completing and billing for an integrated visit included completing a consult not meeting CPT code criteria (e.g., screening and brief intervention< 16 mins), being seen for a medically-related BH issue (using H&B codes that can’t be billed same day as PCP visit), BH provider schedule constraints, and needing prior authorization from insurance. A mailed survey of patients who missed scheduled appointments identified the primary barriers as financial/insurance, lacking transportation, and interference from physical/mental health symptoms. Limitations on same-day visits combined with a high no-show rate for scheduled appointments (20-30%) present challenges to RVUs and the business plan for BH services. To address these issues, clinics may need to employ flexible scheduling models for providers and explore different business models that aren’t RVU-based to support services. Advocacy at the state and federal levels for reimbursement of BH services or models that pay for bundled services will become increasingly important for practices to financially support integrated care.

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Background: Health-related internet use and eHealth technologies are continually being integrated into healthcare environments. Online patient-provider communication (PPC) is one eHealth effort that supports access to reliable and timely health information. Although there is evidence indicating that online PPC is increasing, the rates remain low. This study aimed to describe sociodemographic, health and internet-related correlates that influence U.S. adult patients’ interests in, and electronic exchange of medical information with a healthcare provider.

Methods: Nationally representative cross-sectional data from the 2014 Health Information National Trends Survey (HINTS, N=3,677) were analyzed. HINTS 4 Cycle 4 data were collected via self-administered mailed questionnaires from U.S. adults (18 and older). Descriptive statistics and multivariable regression analyses were performed to examine associations between patient-level characteristics and reported online PPC behavior and interests.

Results: Most respondents were internet users (82.8%) and 61.5% of information seekers designated the internet as their first source for health information. Younger respondents (< 50 years), Hispanics, those with higher income, and perceiving access to personal health information (PHI) as important, were consistently more likely to be interested in engaging in online PPC. Despite varying levels of patient interest, 68.5% had no online PPC in the last year. However, internet users (OR = 2.87, 95% CI: 1.35-6.08), college graduates (OR = 2.92, 95% CI: 1.42-5.99), and those with frequent provider visits (OR = 1.94, 95% CI: 1.02-3.71) had higher likelihoods of online PPC via email and fax; while Hispanics and those with higher income were two to three times more likely to communicate via text messaging or phone/mobile device apps.

Conclusion: Patients’ interest in online PPC as well as PPC-related behaviors vary by age, race/ethnicity, education, income, internet access/behaviors, and type of information. These findings can inform efforts aimed at improving the use and adoption of eHealth technologies, which may contribute to a reduction in communication inequalities and health disparities.

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A108a 6:00 PM-7:00 PM
PRIMARY CARE PROVIDERS’ PERCEPTIONS OF USING TECHNOLOGY FOR PATIENT EDUCATION
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BACKGROUND: Despite high levels of access to internet and mobile device use in the general population, the use of technology for patient education in primary care remains limited. This study examined the perceptions of primary care providers (PCPs) regarding the use of mobile technology to educate patients about health.

METHODS: From October 2014 to October 2015, we conducted a pre-intervention online survey of PCPs who enrolled in a randomized controlled trial (RCT) testing the use of an in-language tablet computer application that provides interactive video health education to Asian American patients in two urban healthcare systems. The PCPs were asked to indicate their agreement using a 5-point Likert scale with 7 statements on benefits and concerns about “using technology (such as tablet computers) to teach patients about health.”

RESULTS: Out of 188 eligible PCPs, 137 participated in the RCT and 128 completed the survey. Respondents were PCPs who practice in a county medical center (69%) serving primarily uninsured or publicly insured patients, or a university medical center (31%) serving a majority of patients with private insurance. The sample included 73% female, 51% white, 33% Asian, 8% Latino and 4% Blacks; about half (55%) spoke Spanish, and 23% spoke an Asian language. Over half (59%) were attending physicians, 46% residents or fellows, and 5% nurse practitioners. About two-thirds reported that mobile technology could be beneficial for patients (64%), help patients be healthier (67%), and should be linked to electronic health records (66%). PCPs were concerned about logistical problems associated with the use of such technology in their offices (51%) and that it was too difficult for older (66%) and limited English proficient patients (45%) to use. Multivariate generalized linear model showed that county system PCPs reported higher levels of concerns than those practice at university medical center settings (p=0.02).

CONCLUSION: Primary care providers in two urban settings with diverse patient populations perceive that mobile technology has potential to help improve patient care. For these providers, mobile technology interventions in health care need to address logistical barriers and be easy to use for patients who are older or limited English proficient.

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PRIMARY CARE STAFF EXPERIENCES OF HEALTHY LIFESTYLE PROMOTION AND PERCEPTIONS OF DIGITAL INTERVENTIONS AS POTENTIAL TOOLS

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Background: Evidence-based healthy lifestyle promotion in primary health care has been supported internationally in policies and guidelines, but implementation is slow. Referral to digital interventions could lead to more patients accessing structured interventions for healthy lifestyle changes, but increased referral might require more guidance from caregivers to patients accessing such interventions.

Aims/method: This qualitative study aimed to illuminate the perceptions of caregivers in primary care on healthy lifestyle promotion with or without digital intervention. Focus group interviews were conducted at 10 primary care clinics in Sweden; the sampling was purposeful, with each clinic recruiting caregivers from different professions. Transcribed texts were analyzed in a phenomenological-hermeneutic model involving naïve understanding, structural analysis and comprehensive understanding.

Results: Two themes were identified: 1) following structured professional practice and 2) deficiency in professional practice. Sub-themes for theme 1 were striving towards professionalism, meaning working in a standardized fashion, with replicable routines regardless of clinic, as well as monitoring statistics on individual patient and group levels; and embracing the future, meaning expecting to develop professionally but also being concerned about the consequences of integrating digital tools into primary care, in terms of the personal interaction between patient and caregiver. For theme 2 the sub-themes were being in an unmanageable situation, meaning not being able to do what’s best for the patient due lack of time and resources; and following one’s perception, meaning working haphazardly, without structure.

Conclusions: The concepts of professional identity and evidence-based practice, use of gut feelings in everyday healthcare work and implementation of innovations inform results interpretation. The major challenge is how to implement digital interventions as complements to the encounter between caregivers and patients.

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Patients Presenting to a Specialty CBTi Practice in a University Training Clinic

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Introduction: Cognitive Behavioral Therapy for Insomnia (CBTi) is a brief treatment that aims to modify sleep-disruptive behaviors and cognitions. To our knowledge, no one has reported the demographic and clinical characteristics of patients presenting to a CBTi training facility. This data is pertinent, as the efficacy of treatment is often moderated by patient demographics. As such, we sought to explore the characteristics of patients presenting for CBTi at an urban university training clinic for doctoral students in Clinical Psychology.

Methods: Data were retrospectively extracted from patient electronic medical records in the first year of a new CBTi specialty practice. Patients completed an intake form, which collected demographic information, presenting complaints, and medical problems. The Achenbach was utilized to identify psychopathology. The Insomnia Severity Index (ISI) was used to collect insomnia symptom severity status.

Results: 17 patients, between 18 – 71 years of age, were seen by 3 trainees. The majority of patients (58.8%) were female, and all were Caucasian (70.6%) and African American (29.4%). 76.5% identified as heterosexual, followed by lesbian (11.8%), and gay (5.9%). Patients presented with a variety of comorbidities, the most common being gastrointestinal problems (35.3%), depression (29.4%), sleep apnea (23.5%), cardiac problems (17.6%), pain (17.6%), and anxiety (17.6%). Additional presenting concerns included attention difficulties (29.4%), memory problems (29.4%), and changes in weight (29.4%). 11 patients completed pre- and post-treatment ISIs, which indicated that on average, patients started treatment with moderate insomnia severity (M = 19.8, SD = 4.1) and completed treatment without any clinically significant insomnia (M = 6.1, SD = 4.8).

Discussion: Patients had a variety of comorbidities and presenting concerns. These results may have implications for treatment planning and expected length of treatment. Future studies should further explore the impact of these potential moderating factors.

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A120b 6:00 PM-7:00 PM

GREATER HIGH-FREQUENCY HEART RATE VARIABILITY ASSOCIATES WITH BETTER SUBJECTIVE SLEEP

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Background: Greater high-frequency heart rate variability during wakeful rest has been shown to associate with positive self-reports of sleep. This investigation examines the relationship between subjective sleep and heart rate variability in addition to other physiological measures among young adults to determine the usefulness of different physiological measures as indicators of sleep. Methods: Thirty participants (age: M = 20.0, SD = 2.9; 50% female) were enrolled in a study examining emotional reactions. Continuous high-frequency heart rate variability, electrodermal activity, and facial electromyography were recorded throughout the session. Participants viewed a series of seven videos each five minutes in length meant to elicit distinct emotional states. Subjective emotional responses were provided at the end of each video. After the videos, participants completed questionnaires including the Pittsburgh Sleep Quality Index. Physiological measures during a neutral video were correlated to Pittsburgh Sleep Quality Index total scores. Results: Global scores on the Pittsburgh Sleep Quality Index were generally good (M = 5.67, SD = 2.43). Spearman's correlation coefficients indicated better sleep relates to greater high-frequency heart rate variability during the neutral video, ρ = -.54, p < .05, although heart rate variability segments during the other videos were unrelated to sleep adjusting for multiple comparisons. Electrodermal activity and facial electromyography throughout the neutral video were unrelated to sleep, ps > .05. Conclusion: High-frequency heart rate variability during wakeful rest associates with subjective accounts of sleep in young adults. Future work examining in-lab and ambulatory heart rate variability during wake and sleep periods is necessary to evaluate the usefulness of heart rate variability as an indicator of sleep.

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A120c 6:00 PM-7:00 PM

DOES TRAVEL DISTANCE PLAY A ROLE IN THE TYPES OF PATIENTS SEEN IN A PEDIATRIC SLEEP CLINIC?

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Background: Sleep disturbances are common in children and can negatively impact their health and daytime functioning. Specialists trained to address pediatric sleep disorders are often available only at major academic medical centers, potentially causing families to travel long distances to seek treatment. This study examined travel distance in relation to sleep problems and demographic factors among patients seen at a pediatric sleep clinic.

Methods: A retrospective medical chart review was completed for 290 patients (60% male, 55% White), ages 0-20 years (M=8.1, SD=5.4) who traveled more than 3 miles for their initial visit at an interdisciplinary pediatric sleep clinic within an academic medical center. Patient travel distance was calculated by averaging the shortest driving directions from the patient’s zip code to the sleep clinic address on 3 public navigation systems. Results: Patients traveled an average of 24.8 miles (range=3.2-162.8 miles) to the sleep clinic. Logistic regression analyses indicate that shorter travel distance was associated with with inadequate sleep hygiene (p=.02) and circadian rhythm disruption (p=.06). Linear regression analyses showed that residing in less disadvantaged neighborhoods and White race was associated with longer travel distance (ps)

Conclusions/Implications: Families of children with sleep disorders who live beyond the immediate vicinity of our academic medical center may face a lengthy commute when seeking services at a pediatric sleep clinic. Thus, travel distance can play a role in whether families follow up on referrals to sleep clinics, especially those with behaviorally-based sleep disorders. Future efforts should seek to examine factors such as travel distance in patients who were referred to sleep clinics but did not ultimately follow up and seek care.

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A121a 6:00 PM-7:00 PM

SOCIAL SUPPORT AND SLEEP FOR GRANDPARENTS RAISING CHILDREN: LESSONS FROM THE KIN TECH RCT

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Introduction

One in 11 of all children and 1 in 5 African American children live with a grandparent at some point before the age of 18. Literature suggests that greater social support may lay the groundwork for better health for grandparent caregivers. This study will describe a sleep profile and explore the relationship between social support and sleep hygiene for grandparents caregivers.

Methods

This study used twelve month follow up self-report data from 100 participants from the KIN-Tech Project, the only randomized control trial funded by the US Children’s Bureau investigating caregiver and child health and sleep. Anovas examined the relationship between sleep and social support.

Results

100 middle-aged (m=46 years), single (65.7%), African-American (46%), low income (m=$24,000) grandparents (88% female) caring for younger children (50%: 8 hrs), participated. Forty-one percent of caregivers reported troubled sleep. Total sleep time was 5.5 hours, 57% were short sleepers (8 hrs), with 16% diagnosed with sleep apnea by a physician. Caregivers with less adequate sleep also had less adequate social support [F(38,62) = 1.619, p=.045]. Long sleepers [F(99, 1)=27.70, p < .000] and short sleepers [F(99, 1) =4.24, p=.042] reported less adequate social support.

Conclusion

These results suggest that caregivers who report inadequate sleep, short sleep and long sleep are also reporting less adequate social support. Future research examining the relationship between social support and sleep in grandparent caregivers and whether increasing social support might improve sleep or vice versa is warranted.

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A121b 6:00 PM-7:00 PM

SOCIAL MEDIA ADDICTION AS A CONTRIBUTING FACTOR TO THE ASSOCIATION BETWEEN SOCIAL MEDIA USE AND DEPRESSION AMONG US YOUNG ADULTS

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Background: Depression is the leading cause of disability worldwide. Although previous research suggests an association between increased social media use (SMU) and depression, this effect may be partially explained by social media addiction (SMA). Specifically, the link between SMU and depression may be magnified in individuals with higher SMA. Therefore, this study empirically tested SMA as a possible mediator of the association between SMU and depression.

Methods: Participants ages 19-32 (N=1760) were randomly selected from a national probability-based panel. We assessed SMU by total time per day and frequency of visits to the 11 most popular SM platforms (e.g., Facebook, Twitter, Instagram, Reddit, and Tumblr). SMA was measured with the validated Bergen Facebook Addiction Scale, adapted for measuring SMA broadly. Depression was measured using the validated Patient-Reported Outcomes Measurement Information System (PROMIS) brief depression scale. Using path analysis, we tested the effects of SMU on depression mediated by SMA, while controlling for seven relevant socio-demographic covariates.

Results: Both SMU time and frequency were positively associated with SMA (B=0.010, SE=0.001, p < .001 and B=0.029, SE=0.003, p < .001, respectively), and increased SMA was associated with increased depression (B=0.159, SE=0.021, p < .001). SMA explained about 68% of the effect of SMU time on depression (B=.002, SE=.0003, p < .001), and 73% of the effect of SMU frequency on depression (B=.005, SE=.001, p < .001). There was no significant direct effect of SMU time or frequency on depression after controlling for SMA.

Conclusions: Among this nationally representative sample of young adults, the association between SMU and depression was largely explained by SMA. Therefore, intervention efforts may be most successful if they address addictive components of SMU. Future research utilizing longitudinal data and developing a clinical assessment scale for SMA would be valuable.

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A122a 6:00 PM-7:00 PM

IMPACT OF SMOKING CIGARETTES ON MARIJUANA USE
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It has been suggested that co-use of cigarettes and marijuana is due to synergistic and compensatory effects. Previous studies investigating marijuana use in smokers have been limited by comparing smokers and non-smokers, which does not reflect smoking behavior in college students. Also, few studies have considered cognitive factors predicting marijuana use in smokers. The purpose of this study was to investigate the patterns of marijuana use and differences in cognitive factors related to marijuana use among college student smokers. For this purpose, 220 undergraduate students (mean age = 26, 80% female, 59% White) were recruited. Participants completed a demographic questionnaire, smoking and marijuana use survey, Marijuana use Motives Questionnaire, Cannabis Refusal Self-Efficacy Questionnaire, Cannabis Expectancy Questionnaire, semantic differentials, and Implicit Association Task (IAT) for marijuana use. Participants' reported cigarette use was grouped as no use, occasional use, and regular use. Participants' reported marijuana use was grouped into no use, experimental use, and frequent use. The results showed patterns of marijuana use were different among the groups of smokers. Among smokers, occasional smokers reported higher motives and positive explicit attitudes toward marijuana use than regular smokers. Future studies and intervention could benefit from a stronger focus on both substances in tandem, rather than on their own.

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A122b 6:00 PM-7:00 PM

KIDS SAFE & SMOKEFREE: MULTILEVEL COUNSELING IMPROVES CHILD TOBACCO PROTECTION AND PARENT QUIT RATES Versus Attention Control
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Residential parental smoking is the primary cause of child tobacco exposure. Pediatric best practice guidelines, “Ask, Advise, Refer (AAR),” encourage providers to motivate parents to quit smoking. However, pediatric provider advice alone has limited effectiveness, particularly in underserved populations. Kids Safe and Smokefree (KiSS) is a multilevel behavioral health intervention targeting low-income minority parents. It merges (1) a pediatric system-level intervention embedding AAR prompts within the electronic health assessment routine to improve guideline adherence and (2) individual-level telebased counseling (CBT) guiding tobacco smoke protections and shaping those efforts toward cessation. We modified three major health systems’ electronic systems and trained providers to advise and refer parents who smoke. All parents received AAR, then were randomized to proactive telebased interventions: either KiSS counseling, or attention control (nutrition education). Analyses focused on 3-month follow-up (12-month assessments ongoing). The sample (n=319 parents) included 83% female, 83% African American, and 79% living below the poverty line. Average child age = 5 years old. Results showed that about 80% of providers adhered to AAR. More parents in AAR+KiSS counseling compared to AAR+control adopted home smoking bans (96% vs. 82%, OR=6.0); eliminated child tobacco exposure across all settings (57% vs. 33%, OR=2.6); and quit smoking (28.4% vs. 8.3%, OR=4.9). Conclusion: Both interventions improved efforts to protect children from tobacco smoke and facilitated quit attempts. However, the multilevel KiSS approach influenced moderately greater likelihood of protections and smoking cessation than control. Results suggest that integration of clinic- and individual-level intervention produces improved outcomes compared to standard pediatric practice (AAR) alone.

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A122d 6:00 PM-7:00 PM
PREDICTING ELECTRONIC CIGARETTE USE AND TOBACCO CESSION IN A STATE-BASED QUITLINE
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The frequency of dual use of electronic cigarettes (e-cigs) and traditional cigarettes is rising in the U.S. as e-cigs are marketed for tobacco cessation. Importantly, there is a lack of evidence regarding the effectiveness of e-cigs in the context of tobacco cessation. The purpose of this study was to describe the characteristics of e-cig users, predict e-cig use, and report 7-month quit rates among individuals enrolled in a tobacco quitline, the Arizona Smokers’ Helpline (ASHLine). Between April 2014 and May 2015 1375 adults enrolled in cessation services and completed a 7-mo follow-up survey. Multivariate logistic regression, controlling for demographic and in-program characteristics, was used to predict e-cigarette use upon enrollment as well as 7-mo quit status. Further, subgroup analysis (n=250) matched for age, nicotine dependence (Fagerstrom) and self-reported mental health status, was performed to evaluate quit rates between e-cig users and non-users. Fifteen percent of ASHLine enrollees self-reported e-cig use at enrollment. E-cig users (vs. non-users) were more frequently female, £ 35 yrs, have a post-high school education, reported a mental health condition, identified as non-Hispanic White, and were less likely to be quit at 7-mo follow-up (28% vs. 39%). Multivariate logistic regression revealed e-cig users were 32% less likely to be quit at 7-mo compared to non-e-cig users (OR 0.68; CI 0.48, 0.97). After matching for sub-group analysis no difference in quit rates was shown between e-cig users and non-users (OR 1.11; CI 0.63, 2.0). This study provides further evidence of the growing dual use of e-cigs and tobacco products for tobacco cessation within a quitline population.
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PREDICTORS OF CESSION AMONG HOMELESS SMOKERS: A COMMUNITY-BASED RANDOMIZED CLINICAL TRIAL

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Introduction: Cigarette smoking remains the leading preventable cause of cancer and heart disease in the United States. Despite the declining rates of smoking in the general population, smoking prevalence remains high among persons who are homeless. It is estimated that 70% of homeless adults smoke cigarettes; due to the high smoking rates in this population, it is not surprising that homeless individuals are more likely to die of tobacco-related diseases. Despite these facts and the documented increase in the number of homeless smokers expressing interest in quitting smoking, very few smoking cessation interventions have been conducted among homeless populations. We conducted a smoking cessation randomized controlled trial (RCT) in a community of homeless persons who smoke. The focus of this secondary analysis study is on the predictors of smoking cessation in the study.

Methods: Data was derived from a two-arm RCT that compared Standard Care (One-time brief advice) with five Motivational Interviewing (MI) sessions among homeless smokers interested in quitting smoking. All participants received 8-weeks treatment with nicotine patch (NRT). Chi-square and Fisher’s Exact tests were used to compare different variables: demographic, psychosocial (e.g., depression and stress), tobacco-related, substance abuse and treatment adherence measures between those who did and did not quit smoking. Smoking cessation was defined as 7-day abstinence from cigarette smoking at 26 weeks, validated by expired carbon monoxide and salivary cotinine. Multivariable logistic regression was conducted including variables with p ≤ 0.10 in the univariate analyses, in addition to randomization group. All statistical analyses were performed using SAS 9.3 (SAS Institute, Cary, NC) and p-values of Results: Participants (N=430) were homeless, current cigarette smokers, predominantly Black (56.3%), male (74.7%), and were, on average, 44.4 years (SD=9.9). Most were unemployed (90.5%) and completed at least a high school education or equivalent (76.7%). The overall cigarette quit rate at 26 weeks was 7.4% (5.6% for Standard Care and 9.3% for MI). Smokers who had been homeless three times or more were more likely to quit smoking than those who had been homeless once, after adjustment for randomization group, family income and NRT adherence (OR=3.35, 95% CI, 1.39 to 8.07, p=0.01). No other measures examined were statistically significantly associated with smoking cessation in this sample.

Conclusions: This study shows important association between homelessness and smoking cessation in homeless adults. Additional research is needed to understand other factors that might promote smoking cessation in this population. Smoking cessation programs conducted in this population should be tailored to address the unique challenges of homelessness in order to enhance cessation and ultimately reduce smoking-related co-morbidities.

PREFERENCES AND INTENTIONS TO USE FLAVORED WATERPIPE TOBACCO AMONG REPRODUCTIVE-AGE WOMEN IN THE UNITED STATES

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Background: Waterpipe tobacco poses serious health effects similar to those found in cigarette smoking. Mass production of sweetened flavored tobacco has contributed to the global increase in waterpipe smoking. Reproductive-aged women may be particularly vulnerable to the appeal of flavorings due to alterations in taste preferences and cravings across the menstrual cycle and during pregnancy. The use of waterpipe tobacco is especially problematic among reproductive-age women as waterpipe smoking during preconception and pregnancy increases the risk of infertility, obstetrical complications, and low birth weight. The purpose of this study was to assess preferences for and intentions to use flavored waterpipe tobacco among reproductive-age women (ages 18 to 44).

Methods: Reproductive-age women (N = 253; M age = 28; 74% White) living in the U.S. were recruited via Amazon Mechanical Turk to complete an electronic survey assessing preferences for and intentions to use flavored waterpipe tobacco (“hookah”). Participants completed the surveys in July 2015 and were compensated $1 for their time.

Results: The mean preference for waterpipe tobacco flavors were statistically different between flavors, F(5.13, 1351.11) = 44.20, P < .001. Specifically, women preferred (a) flavored (any) vs. non-flavored (tobacco) waterpipe tobacco and (b) waterpipe tobacco with sweet flavors (fruits, candy, other sweets) vs. other flavors (mint, clove/spice, alcohol, other beverages, tobacco) (Ps < .001). Intentions to use flavored waterpipe tobacco also differed between flavors, F(5.27, 1222.57) = 22.58, P < .001. Women intended to use waterpipe tobacco that was (a) flavored vs. non-flavored, (b) sweet flavored vs. any other flavor, and (c) mint flavored vs. other flavors (clove/spice, alcohol, or other beverages) (Ps < .05). Finally, preferences for flavored waterpipe tobacco predicted future intentions to use waterpipe tobacco (Ps < .001).

Conclusion: Sweet flavored waterpipe tobacco is preferred by reproductive-age women. Future research should examine how preferences for sweetened waterpipe tobacco impact use over time.

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QUITADVISOROB: USABILITY AND PRELIMINARY OUTCOMES OF A POINT-OF-CARE TOBACCO TREATMENT SOFTWARE TOOL IN THE OB/GYN SETTING

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Purpose: Over 25% of pregnant women in Kentucky smoke cigarettes compared to 12% nationally. Smoking while pregnant increases risks for mother and child during and following pregnancy, but tobacco cessation can reduce or eliminate adverse outcomes. This study examined the usability and preliminary effects of a web-based, point-of-care decision support tool (QuitAdvisorOB) designed for use by healthcare providers. This interactive, targeted and tailored software tool employs a counseling algorithm based on the 5A’s (Ask, Advise, Assess, Assist, Arrange), the transtheoretical model, and principles of motivational interviewing to facilitate the delivery of brief, patient-tailored tobacco treatment counseling in the obstetric/gynecologic (OB/GYN) setting.

Methods: Participants included eleven OB-GYN physicians and three nurse practitioners (N=14; 86% Female). Six participants did not complete follow-up, reducing the final sample to eight participants. Providers received QuitAdvisorOB training, used the tool for two months, and were subsequently interviewed regarding their perspectives on using QuitAdvisorOB. Participants also completed PRE and POST surveys assessing tobacco treatment knowledge, attitudes, and practices. The POST survey also assessed perceived usability of and satisfaction with the QuitAdvisorOB tool.

Results: Most participants (75%) rated their satisfaction with QuitAdvisorOB as 7-10 or higher, and usability ratings approached the desired standard (66/100; 68 is preferred). Providers reported substantial improvements in perceived knowledge of evidence-based tobacco treatment practices, pharmacotherapy (p < .05), and tobacco treatment implementation (p’s < .05). Qualitatively, providers (75%) proposed that patients could complete portions of the interview prior to consultation to increase clinical efficiency and help mitigate clinician concerns about the amount of time required to address tobacco use in the OB/GYN setting.

Conclusions: In this pilot study, QuitAdvisorOB usability ratings were acceptable and preliminary outcomes encouraging. Qualitative feedback also provided a roadmap for future design changes to facilitate implementation of QuitAdvisorOB and increase its ability to promote evidence-based tobacco treatment interventions in the challenging OB/GYN setting.

A122i 6:00 PM-7:00 PM
RELATIONSHIPS BETWEEN SMOKING URGE CONSTRUCTS AND CIGARETTE USE FOLLOWING VARENICLINE OR PLACEBO TREATMENT

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Although rates of cigarette use have been declining in recent years, smoking remains the leading cause of preventable disease and death in the United States, accounting for 1 out of every 5 adult deaths (USDHHS, 2014). The literature suggests a relationship between affect (positive and negative), craving/urge, and cigarette smoking, but less is known about the temporal relationship between these factors, and whether the aid of pharmaceutical interventions may moderate these associations. N = 205 current smokers (35.3% female; Mage = 34.13, SDage = 10.06) were recruited from Albuquerque, NM to participate in a 12-week long double blind randomized control trial (NIH/NIDA R01 DA025074-01A2; PI: Hutchison). All participants were randomized to receive either a 12-week dose of Varenicline or placebo, and smoking cessation outcomes were assessed at 36-weeks. Smoking urges were measured using two subscales from the Questionnaire of Smoking Urges (QSU): (1) Intention/Desire to Smoke and (2) Relief of Negative Affect/Urgent Desire to Smoke. We examined the pattern of change over time in both subscales and how they related to number of cigarettes smoked at the 36-week follow-up assessment. Mplus version 7.3 was utilized for a cross-lagged path analysis, and the fit of the model was adequate, CFI = .98, SRMR = .06. Temporal stability of both subscales was relatively high. There is some evidence to suggest that higher levels of intention/desire to smoke is associated with higher levels of negative affect relief and urgent desire to smoke at the next time point, as two cross-lagged paths were significant. Only one cross-lagged path suggested effects of negative affect relief and urgent desire to smoke is associated with intention/desire to smoke. Finally, both subscales predict number of cigarettes smoked at week 36, such that higher levels of intention/desire to smoke, but lower levels of negative affect relief and urgent desire to smoke predicted cigarette use at 36 weeks. Notably, these relationships did not vary by treatment condition.

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GENDER DIFFERENCES IN AFFECT-TRIGGERED LAPSES DURING SMOKING CESSATION: A DAILY DIARY APPROACH

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Overall rates of smoking are declining more slowly among women, compared to men in the US. Moreover, women are less likely to quit successfully than men during any given cessation attempt. One potential explanation for this disparity comes from emerging evidence that women are more likely than men to crave cigarettes and smoke in response to negative affect. Consistent with this possibility, laboratory studies have demonstrated that women exhibit greater urges to smoke when under stress than men. Little is known, however, about the possible differential role of affect during an actual quit attempt. We examined gender differences in affective triggers during the critical first two weeks of a quit attempt. To that end, 62 smokers (33.9% female) from a community sample made an unaided, “cold-turkey” quit attempt and recorded lapses each day using daily diary methodology. Participants reported the extent to which the incident was triggered by bad mood, good mood and relaxation. Hierarchical linear modeling was used to analyze changes in affective trigger strength over the fourteen day study interval. Women reported significantly lower levels of ‘good-mood’- and ‘relaxation’-triggered lapses across the entire 14-day interval (p's < 0.05). Interestingly, while there was no main effect of ‘bad-mood’-triggered lapses between men and women (p = 0.65), there was a significant Bad Mood X Time interaction, in which women’s ratings of bad mood as a relapse trigger increased over time while men’s decreased, (p < 0.05). Findings suggest that negative affect persists in triggering lapses during the early trajectory of a quit attempt among women, but not men. Conversely, men report higher levels of good mood/relaxation-related triggers across the early quit trajectory than women. Clinical implications may include a greater emphasis on the gender-specific affective triggers that contribute to smoking lapses when attempting to help smokers who are struggling with cessation.

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ALCOHOL TREATMENT GOAL CHOICE PREDICTS LONGITUDINAL DRINKING OUTCOMES IN ADOLESCENT SUBSTANCE USERS

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Social cognitive theory suggests that when individuals select their own goals, they work harder to achieve them as compared to clinician-imposed goals. Moreover, achieving goals during the course of treatment may increase self-efficacy, which could positively predict outcome. Research in clinical samples of adults with alcohol use disorder supports the utility of treatment goal choice in predicting longitudinal outcomes; a total abstinence (TA) goal choice has been associated with better clinical outcomes (e.g. greater percent days abstinent, more days to relapse to heavy drinking) compared to a controlled use (CU) goal choice. Treatment of adolescents presents unique challenges; adolescents tend to be resistant to treatment, as they often enter treatment in response to external pressures. Research on goal choice has not been reported in adolescents with substance use disorders, for whom goal choice could arguably be of greater utility. Data from 110 adolescents aged 14 to 18 were collected upon admission to outpatient substance use disorder treatment. Multivariate linear regression was used to test the utility of the alcohol treatment goal choice variable in predicting drinking outcomes at 6-, 12-, and 24-month follow-ups. Separate models were run to examine binge drinking days, percent days abstinent, and drinks per drinking day for each of the time points, and respective drinking outcome at the previous time point was controlled for in each model. Results show that baseline goal choice (TA or CU) is a significant predictor of percent days abstinent, binge days, and drinks per drinking day at 6- and 12-month follow-ups, but not at 24-month follow-up. Significant increases in R² suggest that the addition of goal choice to the model accounts for additional variability in drinking outcomes above that accounted for by the drinking variable alone. These findings are relevant to treatment planning as they suggest that goal choice may have clinical utility as an indirect assessment of treatment prognosis.

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BINGE DRINKING WITH ENERGY DRINKS: ASSOCIATED FEATURES AND RISKS RELATIVE TO BINGE DRINKING IN THE ABSENCE OF ENERGY DRINK USE.

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Intake of alcohol mixed with energy drinks (AmED) is an increasingly common drinking behavior, and research suggests this combination is associated with other risky behaviors. Risk factors include social motives and binge drinking (Patrick, Macuada, & Maggs, 2015). Abundant research has compared consumption of alcohol only versus AmED use (Marczinski & Fillmore, 2014), resulting in a well-known association of binge drinking (BD) and AmED use. However, among those who binge drink, little is known about difference between AmED and Non-AmED users. Binge drinking was defined as 4 or more drinks for women and 5 or more drinks for men on one occasion over a couple hours, within the past 30 days. Utilizing a cross-sectional sample of college students (N=672), we observed that 67% engaged in no binge drinking, 24.3% engaged in binge drinking only (henceforth, our Non-AmED group), and 8.8% engaged binge drinking plus energy drinks (henceforth, our AmED group). Within gender groups, 35% of men and 24.4% of women engaged in AmED use (p < .05). Comparisons of the Non-AmED versus AmED groups revealed that those in the AmED group drank on more days in the past month, and had higher negative consequences from alcohol, higher smoking, drug, and risky sexual activity composite scores, more complaints from others about engagement in excessive behaviors, higher sensation seeking and positive urgency scores, and greater expectations of negative social outcomes (i.e., becoming aggressive, mean, or fighting) from drinking. Overall, binge drinking in combination with energy drink use appears to be a relatively common phenomenon with a host of complicating factors that, collectively, would be expected to compound drinking and related risks, making this group a worthy target of campus education and prevention efforts.

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A126b 6:00 PM-7:00 PM

CARDIOVASCULAR CUE-REACTIVITY TO ALCOHOL IMAGES BEFORE AND AFTER STRESS IN COLLEGIATE BINGE DRINKERS VERSUS CONTROLS

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Previous studies suggest that distinct profiles of cardiovascular responses to alcohol cues may index risk for alcohol dependence. However, the majority of such studies have focused on older, alcohol-dependent adults, often with co-morbid health conditions. Cardiovascular cue-reactivity is not as well understood for otherwise healthy, young social drinkers. In the current study, 23 binge drinkers (BD) and 13 non-binge drinking controls (NB) participated in a testing session in which heart rate variability (HRV) was assessed at rest and in response to visual cues (alcohol versus control images) before and after a timed math stressor. BD and NB groups were hypothesized (a priori) to exhibit differential sympathetic-vagal balance (SVB) in response to alcohol cues. BD and NB groups were equivalent on age and family history of alcoholism. Analyses indicated that the math task was subjectively stressful for all participants (F(2,68) = 64.9, pF(1,34) = 6.01, p = .02). There was a significant post-stress increase in sympathetic activity for NBs (p < .04), but not BDs (p = .11). Next, a time (pre- vs. post-stress) x group (BD vs. NB) ANOVA was conducted for SVB in response to alcohol images, revealing a group x time interaction (F(1,34) = 4.19, p < .05), which was primarily driven by greater pre-stress sympathetic response to alcohol pictures in BDs versus NBs (p = .05) with no significant difference between groups in sympathetic response to alcohol pictures post-stress (p = .69). However, SVB did not differ by picture type in an omnibus ANOVA including control images (p = .33). The differential SVB responses of NBs and BDs, at rest and to alcohol cues, is congruent with previous studies in alcohol dependent populations, suggesting that HRV warrants further research as a potential correlate of risk for alcoholism.

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A128b 6:00 PM-7:00 PM

DIFFERENCES IN MOTIVES AND EXPLICIT/IMPLICIT ATTITUDES AMONG TYPES OF MARIJUANA USERS IN COLLEGE STUDENTS

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Cognitive factors have been suggested to predict marijuana use in college students, but previous studies have investigated cognitive factors separately. Furthermore, few research studies have revealed the characteristics of those who experiment with marijuana vs. those who use marijuana frequently. The purpose of this study was to examine the differences in cognitive factors such as motives and explicit/implicit attitudes among different types of marijuana users in college students. For accomplishing this purpose, 220 undergraduate students (mean age = 26, 80% females, 59% Whites) were recruited. Participants completed a demographic questionnaire, marijuana use survey, Marijuana Use Motives Questionnaire, Cannabis Refusal Self-Efficacy Questionnaire, Cannabis Expectancy Questionnaire, semantic differentials, and Implicit Association Task (IAT) for marijuana use. Participants were grouped into non-users, users within 12 months, and users not within 12 months. Of the users within 12 months, 86% reported using marijuana more than once. ANOVA’s revealed differences in types of motives (e.g., coping motives, F(2,217) = 34.39, p < .01; enhancement motives, F(2,217) = 93.44, p < .01) and explicit attitudes (e.g., nice-awful, F(2,217) = 63.64, p < .01) among groups, indicating that users within 12 months had higher motives and more positive explicit attitudes than the other two groups. Users within 12 months showed more positive implicit attitudes, F(2, 215) = 2.94, p = .06, than other groups, which did not reach the statistical significance. Logistic regression analysis revealed that enhancement motives (OR = 1.44, 95% CI [1.14, 1.81], p < .05) and explicit attitudes (OR = 0.43, 95% CI [0.22, 0.86], p < .05) significantly differentiated two types of users. The results suggest that many cognitive factors are linked to marijuana use, while enhancement motives and explicit attitudes are the specific cognitive characteristics separating frequent marijuana users from experimental marijuana users.

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Discrimination Based on Race and Sexual Orientation and Prescription Drug Misuse in Racial Minority Men Who Have Sex With Men

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Prior work has documented associations between prescription drug misuse (PDM) and psychiatric symptoms (e.g., depression, anxiety). Relatively little attention has been paid to associations between racial discrimination and discrimination based on sexual orientation and prescription drug misuse. The present study examined these associations in a sample (N = 188) of racial/ethnic minority men who have sex with men (MSM) recruited from community venues to complete an anonymous, self-administered survey. The sample was predominantly African American (82.4%) with others identifying as mixed race (10.1%), Latino (6.4%) or Native American (1.1%). Participants were gay (92.7%) or bisexual (7.3%). Overall, 20.9% of the sample reported using prescription medications recreationally, without a physician’s prescription. HIV-positive participants were significantly more likely to report PDM (36.4%) than HIV-negative participants (16.0%), \(\chi^2 (1, N = 141) = 4.37, p < .05\). Consistent with prior work, participants who reported PDM scored higher on measures of depression, anxiety, and somatic distress (all \(t > 2.23, \alpha < .05\)). Participants who reported PDM also reported more past year experiences with racial discrimination based on race and discrimination based on sexual orientation. In separate multiple logistic regression analyses controlling for age, education, income, HIV status, and psychiatric symptoms, both racial discrimination (OR = 1.46, 95% CI = 1.10, 1.94, \(p < .01\)) and discrimination based on sexual orientation (OR = 1.67, 95% CI = 1.23, 2.28, \(p < .01\)) were risk factors for PDM. Findings suggest that discrimination based on race and sexual orientation could be one factor leading to PDM in racial/ethnic minority MSM.

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Go-VAR! (Veterans Active Recovery) Pilot Study: Baseline and Preliminary Data

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Background: Substance use disorders (SUD) are prevalent among Veterans. The relapse rate among individuals with SUDs is estimated at ≥60% within one year of treatment. Exercise’s broad positive health, mood-enhancing, and anxiolytic effects make it an appealing adjunctive intervention to help prevent relapse. Purpose: The Go-VAR! (Veterans Active Recovery) pilot study tested a modified version of an evidence-based exercise and cognitive-behavioral treatment program, extending it to a high-risk, vulnerable population: Veterans seeking SUD treatment through the outpatient Alcohol & Drug Treatment Program (ADTP) at the VA San Diego Healthcare System (VASDHS). This multi-component, adjunctive intervention incorporates a combination of subjective, objective, and observational measurement methods to accurately track exercise behavior and includes multiple behavioral components to increase adherence. Method: After conducting formative research with Veterans in the outpatient ADTP, we designed and conducted a pilot study to examine feasibility and potential efficacy of this multi-component intervention. This abstract reports the study’s baseline and preliminary data. At the time of submission, 7/15 had completed the 12-week study, and 8/15 were scheduled for their final assessment in January 2016. Results: We enrolled 15 participants (mean age=45 [SD=9.68], 13 men, 13% Hispanic, 60% White) from the VASDHS outpatient ADTP. The most common substances reported were alcohol (67%), cocaine (7%), marijuana (27%), and methamphetamines (13%). Participants attended the weekly psychoeducation groups, wore the Fitbit Charge HR, increased their weekly physical activity, and utilized their study-provided YMCA memberships, group exercise training sessions, and Fit4Me personal training program. Discussion: Results and participant and stakeholder feedback from the Go-VAR! pilot study will inform the design and modifications of a pragmatic controlled trial testing its efficacy and effectiveness within the VA system.

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A131a 6:00 PM-7:00 PM

ILLEGAL DRUG USE AND USE OF MENTAL HEALTH TREATMENTS
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Background: Illicit drug use is on the rise in the United States. The negative effects of these drugs such as marijuana, have been studied. However, the relationship between these drugs and seeking mental health treatment has not been given the attention it deserves. With drug legalization as such a polarizing topic, all aspects of the argument need to be investigated. This study aimed at identifying which drug usages are more likely to be associated with receiving mental health care.

Methods: Public data were obtained from the National Survey on Drug Use and Health for each year from 2004-2013 in the United States. Participants were categorized in terms of drug use history. Drugs examined in this study included marijuana, hallucinogens, analgesics, and cocaine. Using chi-squared and t-tests, we examined whether there were differences between undergoing various mental health treatment and drug usages, in addition to perceived need for mental health care without receiving it.

Results: A total of 322,869 adults aged 18 years and over (46.7% male) were included in the study. Those who took a combination of analgesics and cocaine had the highest utilization of inpatient treatment (2.9%). Using hallucinogens and cocaine showed the highest utilization of outpatient treatment (13.3%). Among those prescribed medicine for treatment, the most likely individuals were those who used marijuana, hallucinogens, and cocaine (13.9%). Those who used a combination of marijuana, analgesics, and hallucinogens showed the highest perceived need for treatment without receiving any treatment (10.9%). T-tests showed a significant difference (p

Conclusion: This study may help policy makers better understand how specific drugs may affect utilization of mental health care. Drug use was significantly related to receiving mental health treatment and showed a significant difference when compared to non-users. This may be due to bi-directionality in the relationship between drug use and mental health issues.

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A131b 6:00 PM-7:00 PM

INTERPLAY BETWEEN PERCEIVED PEER DRINKING NORMS, THE DRD4 VNTR POLYMORPHISM AND IMPULSIVITY ON YOUNG ADULT ALCOHOL CONSUMPTION
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Introduction: Young adult alcohol use is a prevalent and significant public health concern, which is influenced by a complex interplay of genetic, personality, and social factors. Greater descriptive norms (i.e., perceptions of peer drinking behavior) and injunctive norms (i.e., perceptions of peer drinking acceptability) have been associated with increased young adult drinking, especially among young adults carrying a 7-repeat allele of the DRD4 VNTR. Presence of a 7-repeat allele has also been associated with greater impulsivity (i.e., novelty-seeking and sensation seeking), but it remains unknown whether such heightened impulsivity explains why carriers drink more than noncarriers at high levels of peer drinking norms. The current study examined whether impulsivity accounted for such DRD4 VNTR-related differences in susceptibility to perceived peer drinking norms.

Method: Participants were 113 Caucasian, moderate to heavy drinking young adults (50% female; mean age = 22 years [SD = 2.23]). Results: Generalized negative binomial models revealed that DRD4 VNTR genotype moderated the relationship between descriptive (although not injunctive) peer norms and number of heavy-drinking days in the past 30 days; descriptive norms were more strongly associated with more frequent heavy-drinking among carriers of a high-risk gene variant than among noncarriers. Impulsivity was not significantly associated with any of the alcohol outcomes after accounting for these moderating effects, gender, and all two-way interaction terms of gender with predictors. Conclusion: Our findings suggest that young adults carrying a high-risk DRD4 VNTR variant may be more susceptible to the alcohol-promoting influences of perceived peer drinking behavior, although impulsivity may not account for such differences. Intervention efforts could reduce perceptions of peer drinking behavior, especially in DRD4 VNTR 7-repeat allele carriers, to decrease young adult heavy drinking.

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LATENT DEPRESSION SCORE PREDICTS SUBSTANCE USE AMONG COLLEGE STUDENTS


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Depression is associated with an increased risk of smoking cigarettes (Murphey et al. 2014), smoking marijuana (Chen et al., 2002), and binge drinking (Paljärvi et al., 2009). Furthermore, depression is associated with worse treatment outcomes (e.g. Hitsman et al., 2013). Currently, it is standard practice to measure depression via sum scores, which assumes that each item carries equal weight in determining an overall depression score. This assumption makes interpretation of path coefficients convoluted if not entirely meaningless (i.e. is a 1 point change meaningful?). Furthermore, past research has typically only examined substances individually, or jointly as the number of substances used (suggesting that each substance is affected by this construct in a similar manner). Therefore, an alternative, and perhaps more useful way to measure substance use and depression is via structural equation modeling (SEM) to measure latent traits for depression and substance use. This study assessed whether a latent depression score would predict current substance use estimated by a latent variable among college students (N = 685). Substance use was assessed using single item measures evaluating past month’s use of cigarettes, marijuana, and binge drinking, while depression was assessed using the Center for Epidemiologic Studies Depression Scale (Radloff, 1977). Results indicated that current depression predicts current substance use (γ = 0.12; 95% CI [0.002, 0.261]). However, there was a small effect with an $R^2$ of .014. These findings suggest that there is a small, but significant relationship among depression and unhealthy substance use. They may also suggest that substance use prevention and treatment strategies may benefit from addressing depressive symptoms (or vice versa). Future research should examine the association between specific dimensions of depression and substance use utilizing a longitudinal design to better assess causality.

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Thursday

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6:00 PM-7:00 PM
PATTERNS OF SEDENTARY BEHAVIOR AND QUALITY OF LIFE AMONG MEN ON ANDROGEN DEPRIVATION THERAPY (ADT) FOR PROSTATE CANCER

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Background: Studies examining sedentary behavior (SED) in cancer survivors have often focused on total volume of SED and rarely considered patterns of sedentary time for health outcomes. No study to date has examined patterns of SED in prostate cancer survivors (PCS) who are prescribed androgen deprivation therapy (ADT). The purpose of this study is to: a) describe the patterns of sedentary time (i.e., volume, bout length) and b) examine the associations between sedentary patterns with QoL in PCS. This study is part of a larger, ongoing web-based intervention (RiseTo) to reduce SED among PCS.

Methods: Thirty-seven men on ADT were recruited from prostate cancer clinics at two cancer centers in Toronto, Ontario, Canada (n=20) and one clinic in Seattle, Washington, USA (n=17). SED was objectively assessed using ActiGraph accelerometers worn for 7 days. Self-reported QoL was assessed using the Functional Assessment of Cancer Therapy (FACT). Multiple linear regression models determined the associations between SED and QoL adjusting for continuous. PCS spent 70.4% of their total time sedentary (9.2 h/day), and 43.2% having localized prostate cancer and 45.9% having ADT administered continuously. PCS spent 70.4% of their total time sedentary (9.2 h/day), and 22.2% in moderate-to-vigorous PA (0.5 h/day). PCS spent on average more min/day in shorter sedentary bouts (553 min/day for 1 to 4-min bouts, 453 min/day for 5-10 min bouts, and 254 min/day for 10-19 min bouts) compared with longer sedentary bouts (283 min/day for ≥20 min bouts and 200 min/day for ≥30 min bouts). No significant associations were found between total SED total time (r = -.02), bouts (r = -.13 to .03), or breaks (r = .06) and QoL.

Conclusions: PCS have high total SED time and spend the majority of their day engaged in shorter SED bouts. Further, patterns and volume of objectively measured SED time may not be important for QoL in PCS. The findings contribute to a comprehensive understanding of how SED time is accumulated beyond total volume.

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PREDICTORS OF HOPED-FOR AND FEARED POSSIBLE SELVES AMONG YOUNG ADULTS WITH CANCER

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This study investigated the effects of illness on possible selves among young adults with cancer. Possible selves are the hoped-for or feared roles/identities that individuals believe they may or may not become in the future. A cancer diagnosis in young adulthood could make hoped-for possible selves less achievable and feared possible selves more likely as cancer in early adulthood interrupts developmental tasks. We examined whether possible selves were predicted by fears of recurrence, survival rates, and being in treatment for the cancer. 98 survivors who had been diagnosed between ages 20-29 (93% women) completed an online survey and wrote about how cancer affected their lives. The writing was content-coded for possible selves and fears of recurrence. The most frequent diagnoses were lymphoma (23.5%) and breast cancer (11.2%); 16% were in active treatment. Approximately 60% of the participants wrote about a change in either hoped-for or feared possible selves; 39% mentioned both. Cancer affected young adult survivors’ conceptualizations of possible selves in several ways. Of the 58 who wrote about a hoped-for possible self, more (60%) wrote about losing one than gaining one. Participants most often wrote about losing a hoped-for possible self in the domains of career and parenting (e.g., infertility preventing biological motherhood; having unrealistic career goals) and gaining a feared one in the area of health and finances (becoming disabled or poor). Participants who described hoped-for possible selves generally described possible selves that were easily achieved (Fisher’s exact test = .06). In terms of predictors, fear of recurrence of cancer was related to a greater likelihood of mentioning a feared possible self, \( \chi^2 (1) = 5.29, p < .02 \). Survivors in active treatment were less likely to report a feared possible self, \( \chi^2 (1) = 3.72, p < .05 \), than those who had completed treatment. Survival rates were not related to possible selves. The findings suggest that young adult cancer survivors might benefit from counseling about their fears of the future.

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PREVALENCE AND CORRELATES OF COGNITIVE BARRIERS TO SUCCESSFUL CANCER-RELATED PAIN MANAGEMENT

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Successful pain management is an important part of cancer care leading to better treatment adherence and quality of life. Despite the availability of effective treatments to manage pain, it is often underreported and undertreated. We examine the prevalence of patient-level cognitive barriers to successful pain management and their correlates.

Data were analyzed from 776 breast and colon participants ~4–12 months post-diagnosis, who reported experiencing pain within the past month. Participants were asked the degree to which they agreed with three beliefs: people get addicted to pain medication very easily; good patients avoid talking about pain; and the experience of pain is a sign of disease progression. Multi-item scales were used to assess pain interference, anxiety, and depression. Multi-variable multi-level regressions were used to identify characteristics associated with barriers.

67% of patients agreed people get easily addicted to pain medication, 15% agreed good patients avoid talking about pain and 24% agreed pain is a sign of disease progression. Multivariable models indicated increased pain interference (p=0.0034) and anxiety (p < 0.0001) were significantly associated with agreeing pain is a sign of disease progression. Higher depression scores were associated with agreeing people get easily addicted to pain medication (p=0.0480) and good patients avoid talking about pain (p=0.0019). Older age was the only sociodemographic characteristic associated with agreeing that good patients avoid talking about pain (p=0.0005) and pain is a sign of disease progression (p=0.0033).

Routine assessment of pain and open patient-provider communication are needed to educate patients and overcome barriers to its management. Our results suggest clinicians should pay special attention to overcome these barriers in older patients or those experiencing anxiety or depression. Screening and treatment of psychological distress could be beneficial in managing pain.

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PREVALENCE AND CORRELATES OF LONG-TERM DEPRESSION WITHIN A COHORT OF NON-ELDERLY ADULT CANCER PATIENTS

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Background: No studies have examined the prevalence of depression and its correlates over time within a U.S. population-based cohort of non-elderly cancer patients (age 18 – 64).

Methods: Data were obtained from the Military Health System Data Repository, and Defense Enrollment Eligibility Reporting System. All beneficiaries diagnosed with a new cancer in FY2007 and who submitted healthcare claims through FY2014 were included. Depression was based on ICD-9 codes found on claims data at least 2 years post-cancer diagnosis. Demographic data included sex, age, marital status, beneficiary category (e.g., active duty, family member), sponsor rank (enlisted v. officer), and source of health care (military v. civilian). Cancer site, average length of expected survival by cancer site, and number of chronic conditions were also considered. Log linear regression models were used to identify factors associated with a depression diagnosis.

Results: Of the 14,211 cohort members, 57.8% were female, average age was 52.8, 43.7% were married, 72.0% had an enlisted sponsor, and 25.8% received the majority of health care at a military facility. Highest rates of depression over time were found among those with liver or intrahepatic ductal (16.5-23.3%) and pancreatic (18.6-25.7%) cancers. For the total cohort, rates of depression increased significantly over time (χ²= 4.394, p=0.036) from FY2009 to FY2014. In regression models, receipt of a depression diagnosis was associated with being female (AOR=1.98, p < 0.0001), younger age (AOR=0.95, p < 0.0001), being unmarried (AOR=1.20, p < 0.05), officer sponsor rank (AOR=1.16, p < 0.05), receipt of the majority of health care in civilian facilities (AOR=1.14, p < 0.05), and higher number of chronic conditions (AOR=2.36, p < 0.0001).

Discussion: Depression among non-elderly cancer patients is strongly related to cancer site and presence of other chronic diseases. The findings suggest that depression screening and treatment should be integrated into follow up care at least 7 years post-diagnosis. Higher rates of depression among those treated in civilian care may reflect levels of screening for depression in different systems of care, or may indicate that individuals with more chronic and complex conditions are likely to be treated in civilian facilities.

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Prospective Influences of Family Functioning on Adaptive Skills in Pediatric Brain Tumor Survivors

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Objective: The conclusion of tumor-directed therapy for pediatric brain tumor survivors (PBTS) is an important time when aspects of survivor functioning may be affected by family processes as they recover from treatment. This study prospectively examines the influences of general family functioning on survivor adaptive skills.

Methods: Participants included 30 PBTS (17 females; mean age = 10.97 years, SD = 2.61) and their mothers (mean age = 42.40 years, SD = 5.97). Evaluations occurred within 4 months of finishing tumor-directed treatment (mean time since diagnosis = 1.44 years, SD = 2.00) and approximately 9 months later. Survivors completed the WASI-II and the Family Assessment Device (FAD). Mothers completed the FAD and the Behavior Assessment System for Children, 2nd Edition (BASC-2).

Results: Overall, survivor adaptive skills were in the normal range (mean = 51.43, SD = 9.21) at follow-up with 10 percent demonstrating at-risk or clinical concerns for low levels of adaptive skills. Pearson bivariate correlations showed better baseline parent- and survivor-rated family functioning (r = -.44, p < .05 and r = -.50, p < .05) were associated with better survivor adaptive skills at follow-up.

A hierarchical regression model with parent-rated family functioning as a predictor and survivor IQ as a covariate accounted for a significant amount of variance in follow-up survivor adaptive skills (F(2, 27) = 6.26, p < .01, Cohen’s f = .50). Parent-rated family functioning significantly predicted follow-up survivor adaptive skills (F(2, 27) = 3.09, p < .069, Cohen’s f = .32).

Conclusions: Evaluating family functioning at the conclusion of tumor-directed treatment is important due to the family’s role in promoting adaptive skills in PBTS. Interventions that target family functioning might improve long-term survivor adaptive functioning.

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Provider Influence on Sperm Banking Decision-Making Among Adolescent Males Newly Diagnosed with Cancer

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As more children diagnosed with cancer survive into adulthood, greater attention is being placed on improving survivor quality of life outcomes such as fertility. Sperm banking is an effective way to maintain fertility; however, only a minority of adolescent patients opt to bank sperm prior to the initiation of treatment. We examined providers’ sociodemographic characteristics, specialty referral patterns, and communication styles in association with sperm banking outcomes in at-risk adolescent males newly diagnosed with cancer.

We used a prospective single group quasi-experimental study design to test the contributions of provider factors on sperm banking outcomes. Medical providers (N=50, 82.0% oncologists) and 99 of their at-risk adolescent patients from eight leading pediatric oncology centers in North America completed questionnaires which captured provider characteristics, and associations with patient sperm banking outcomes (bank/no bank and attempt/no attempt) were examined. Logistic regression was used to test provider factors as potential correlates of the two binary sperm banking outcomes.

In the multivariate model, no sociodemographic characteristics were identified as being significant, but adolescents referred for a fertility consultation were almost five times more likely to bank (OR=4.96, 95% CI=1.54–16.00, p < .01) relative to those not referred. Fertility preservation referral (OR=9.01, 95% CI=2.54–31.90, p < .001) and provider competence in negotiating barriers to sperm banking with families (OR=1.94, 95% CI=1.03–3.63, p < .04) were associated with sperm banking attempts.

These findings suggest that a specialized fertility referral increases the likelihood of sperm banking in adolescents, whereas fertility referral and provider skill in negotiating banking barriers are associated with increased attempts. Implications for interventions will be discussed.

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B030a 6:00 PM-7:00 PM

EXAMINING POTENTIAL MECHANISMS FOR DEPRESSION SYMPTOM REDUCTIONS IN RESPONSE TO TAI CHI PRACTICE IN PATIENTS WITH HEART FAILURE

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Background: Millions are affected by heart failure (HF) and nearly a third exhibit clinical symptoms of depression, relating to morbidity and mortality. Although evidence suggests strenuous exercise reduces depression symptoms, there is less research on mild-to-moderate exercise such as tai chi for reducing depression symptoms in patients with HF. Furthermore, few have investigated psychosocial mechanisms of depression symptom reduction associated with tai chi practice.

Purpose: This study examined whether tai chi versus another mild-to-moderate exercise, resistance band (RB) training improved depression symptoms, when compared with treatment as usual (TAU). Additionally, changes in spiritual well-being and mindfulness were assessed, and their relationships to depression symptom reduction determined.

Methods: Patients with HF (N=68, mean age=65.0, SD=10.5) were cluster randomized to 16-weeks of tai chi, RB or TAU. Pre- and post- intervention assessments included Beck Depression Inventory-1A (BDI) (mean=10.1, SD=7.3), Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being Scale (FACITsp) (mean=28.4, SD=8.0), and Five Facets of Mindfulness Questionnaire (FFMQ) (mean=87.2, SD=2.8).

Results: Reduced depression scores related to practicing tai chi (p=.027, OR=0.76) but not RB (p=.50, OR=0.92), when compared with TAU. Increased spiritual well-being (FACIT-SP) and mindfulness (FFMQ) were associated with tai chi but not RB participation (p=.023, OR=1.35; p=.038, OR=1.11). Increases in FACIT-Sp and FFMQ scores predicted reductions in BDI symptoms in the tai chi (B=-.277, p=.024; B=-.160, p=.001), but not RB group (p's>.01).

Conclusions: Tai chi but not RB training was associated with reduced depression symptoms when compared with TAU, which may be modulated by increases in spiritual well-being and mindfulness.

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We examined the association between depressive symptoms and cardioprotective medication adherence in patients with heart disease recently discharged following a cardiac procedure. Depression has been associated with poor adherence to cardiac treatment including cardioprotective medications. These studies have examined outpatients with heart disease, but research on the relationship between depression and medication adherence shortly after discharge is limited.

Participants (n = 31) were recruited from an urban safety-net hospital during a pilot randomized control trial. Medication adherence, the outcome variable, did not differ by study group, thus the analyses were not differentiated by group. Participants completed surveys, including the 8-item Morisky Medication Adherence Scale and the 9-item Patient Health Questionnaire, during inpatient hospitalization (Time 1) and 5 weeks following discharge (Time 2).

Most participants were male (64.5%) and white (58.1%), with 80.6% earning a household income of $29,999 or less. Approximately 45% and 39% reported moderate to severe depressive symptoms at Time 1 and Time 2, respectively. Nearly 68% reported nonadherence to cardioprotective medications at Time 2. Time 1 and Time 2 depressive symptoms were dichotomized to minimal/mild and moderate/severe symptom classifications and entered into independent T-test analyses to compare Time 2 medication adherence means. Results indicated no difference in Time 2 medication adherence between Time 1 depressive symptom classifications. Those who reported greater depressive symptoms at Time 2 reported significantly lower adherence to cardioprotective medications, t(29) = -2.68, p = .012.

Results suggest that almost 70% of participants had less than optimal adherence to cardioprotective medications after their cardiac procedure. Those with greater depressive symptoms following discharge reported less adherence to cardioprotective medications. Continued assessment of depressive symptoms after hospital discharge is warranted to identify potential influential factors for treatment adherence.

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MESSAGE TESTING A CARDIOVASCULAR GENOMICS RETURN OF RESULTS PROTOCOL WITH AFRICAN-AMERICANS IN RURAL NORTH CAROLINA

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The National Institutes of Health and the Centers for Disease Control and Prevention have jointly indicated urgency in establishing an evidence base for effective ways of communicating personal genomic information, as an approach to promoting behavior change to reduce risk for common chronic diseases (e.g., cardiovascular disease—CVD). The goal of this project is to adapt an existing return of genomic results protocol for common chronic diseases to the Heart Healthy Lenoir (HHL) population to ensure cultural and literacy appropriateness for African-Americans in a rural setting.

Six message-testing groups were conducted. The protocol included individual sessions where participants received hypothetical CVD genomic results, followed by a group session where participants gave line-by-line feedback on the return of results script. Participant demographic data were obtained from HHL. The REAL-G—an 8-item Rapid Estimate of Adult Literacy in Genetics—was administered in the individual session. All sessions were digitally recorded and transcribed for analysis.

Thirty-two African-American HHL participants took part in the message-testing groups. Participants were mostly female (n=30); average age was 52 years; and over half reported at least a high school education (n=29). The average REAL-G score was 4.9 ± 2.8, with eight participants falling into the low-genetic literacy category. Three key lessons were learned. 1) Participants preferred the use of genetic terms to plainer language. 2) Participants wanted both genomic results and clinical measures. 3) Participants wanted more genomics education. As a result of these findings, we adapted our communications approach to include the following: 1) referring to “SNPs” over “small DNA changes”, 2) a report on how clinical measurements changed over the course of HHL, and 3) a genetics educational video, the odds ratios regarding each SNP, and a key words sheet.

The resulting communications protocol will be used to return CVD genomics information in a second phase of this project. The later phase will investigate the effect of conveying CVD genomic risk information on motivation towards diet and physical activity. Final study results will add to the literature of using personalized genomic risk information for health behavior change in high-risk minority populations.

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PERSONALITY AND PARASYMPATHETIC FUNCTIONING FOLLOWING SOCIAL AND COGNITIVE ACTIVITIES

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Heart rate variability has a well-documented relationship with negative health outcomes including coronary heart disease and all-cause mortality. Stable personality traits suggest a means to assess chronic attributes of individuals that may be at risk for disease. The purpose of this study was to examine whether trait personality characteristics were associated with parasympathetic functioning in a diverse sample of young adults. Participants (n = 95, mean age = 20.77, SD = 4.97) completed self-report measures including the Big Five Inventory, the Type D Scale-14 and a physiological assessment to compute heart rate variability during a baseline imagery task and following a social and cognitive condition. Participants (80% female) self-identified as European American (40%), Latino/a (36%), African American (7%), and “other” (17%). Bivariate correlations revealed that conscientiousness was associated with greater parasympathetic functioning following a social (r = 0.23, p < .05) and cognitive (r = 0.24, p < .05) activity. In regression analyses, being less agreeable (t = -2.14, p < .05) and conscientious (t = 2.88, p < .01) were associated with parasympathetic functioning following a social activity (Adj. R² = .08, F (7, 85) = 2.21, p < .05), while being female (t = 3.70, p < .001) and conscientious (t = 2.81, p < .01) were associated with parasympathetic functioning following a cognitive activity (Adj. R² = .17, F (7, 84) = 3.69, p < .01). Neuroticism, introversion, openness and Type D personality were not significantly associated with parasympathetic functioning within this sample. These results demonstrate that it is important to place equal emphasis on personality traits that have received less attention in the literature, such as conscientiousness and agreeableness, in order to understand and develop better methods to promote health.

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PHYSICAL ACTIVITY BUFFERS THE IMPACT OF CYNICAL HOSTILITY ON CORONARY HEART DISEASE AMONG POST-MENOPAUSAL WOMEN

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Cynical hostility is a risk factor for coronary heart disease (CHD), the leading cause of death among American women. Physical activity reduces the risk of CHD, but it is unclear whether physical activity can buffer against the negative effects of cynical hostility on CHD. Survival analysis was conducted on longitudinal data from the observational cohort of the Women’s Health Initiative that was collected over nine years from 84,658 post-menopausal women (mean age = 63.4) who had no cardiovascular disease at baseline. Cynical hostility was measured at baseline using the cynicism subscale of the Cook-Medley Questionnaire. Self-reported physical activity data were collected at baseline and converted to MET-hours per week. CHD data was collected annually over nine years and was defined as clinical myocardial infarction or CHD death. Cox proportional hazard regressions were used to estimate risk of CHD events. After adjusting for known CHD risk factors, there was a main effect of hostility that increased risk for CHD: HR = 1.13, 95% CI = 1.06 to 1.20. Moderation analysis revealed a significant interaction between hostility and physical activity (p = .02). Using the high hostility + low physical activity group as the reference group, there was a buffering effect of physical activity on the relationship between hostility and CHD such that higher levels of physical activity provided greater protection against CHD: high hostility + moderate physical activity (HR = 0.89, 95% CI = 0.79 to 1.00); high hostility + high physical activity (HR = 0.83, 95% CI = 0.72 to 0.95); low hostility + low physical activity (HR = 1.02, 95% CI = 0.89 to 1.16); low hostility + moderate physical activity (HR = 0.82, 95% CI = 0.73 to 0.93); low hostility + high physical activity (HR = 0.68, 95% CI = 0.59 to 0.78). Trend tests revealed that the buffering effect of physical activity on CHD held for those low (p < .0001) and high (p < .01) in hostility. In conclusion, higher levels of physical activity may buffer against the impact of cynical hostility on CHD in post-menopausal women.

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B035c 6:00 PM-7:00 PM

PHYSIOLOGICAL AND PSYCHOLOGICAL STRESS AS PREDICTORS OF MINDFULNESS SKILLS

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Mindfulness skills may improve psychological well-being (i.e., reducing symptoms of anxiety and depression) and cardiovascular health (e.g., lower blood pressure). The purpose of this study was to examine the relationship between physiological and psychological stress with mindfulness skills after a cognitive and social stressor in a sample of young adults.

Participants (n=95, 80% women) were asked to complete self-report measures and a physiological assessment. Participants’ HRV was calculated following a baseline imagery condition, a cognitive and social stressor. Participants (mean age 20.8, SD=4.97) self-identified as European American (40%), Latino/a American (36%), African American (7%), or other/mixed/biracial (17%).

Each of the four mindfulness skills of the KIMS served as a dependent variable. Bivariate correlations showed that “act with awareness” was associated with perceived stress (r = -.31, p < .01), “observe” was associated with baseline HRV (r = -.22, p < .05), “accept without judgment” was associated with HRV after a social stressor (r = -.21, p < .05) and perceived stress (r = -.48, p < .01), and “describe” was associated with perceived stress (r = -.29, p < .01). Regression analyses revealed that gender (t = -2.00, p < .05) and perceived stress (t = -3.26, p < .05) were significant predictors of “act with awareness” (Adj. R2 = .14, F(8, 83) = 2.85, p < .05). HRV after a social stressor (t = 3.28, p < .05), baseline HRV (t = 2.73, p < .05), and perceived stress (t = -5.25, p < .05) were significant predictors of “accept without judgment” (Adj. R2 = .30, F(8, 83) = 5.82, p < .05). African American ethnicity (t = 2.54, p < .05) and perceived stress (t = -2.92, p < .05) were significant predictors of “describe” (Adj. R2 = .13, F(8, 83) = 2.62, p < .05). The regression model was not significant for “observe”.

Mindfulness skills are an important tool that promote and improve psychological and physical health. HRV can be altered through biofeedback, which serves as a method to improve mindfulness skills.

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B041a 6:00 PM-7:00 PM

> USING STRUCTURAL EQUATION MODELING TO DETERMINE THE IMPACT OF FAMILIAL FACTORS ON CHILD ASTHMA OUTCOMES

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Objective: Previous research has linked familial factors to pediatric asthma outcomes. This study extended previous literature by using a multi-informant approach including observational methods, parent report and child self-report to better understand processes within families that may influence child asthma outcomes. Specifically, we used structural equation modeling (SEM) to simultaneously investigate the impact of familial factors (e.g., family functioning, caregiver daily hassles, caregiver mental health) on asthma outcomes (e.g., lung function, quality of life [QOL]) in children with asthma.

Methods: Participants included 215 children (63% male) with asthma (56% persistent) between the ages of 5 and 12 years (M=7.86 years, SD=2.18) and their primary caregivers (53% Caucasian, 31% African American). Children and caregivers completed questionnaires at an initial research session. A trained respiratory therapist administered a spirometry test to measure lung function. Additionally, in a home visit, families recorded themselves having a meal together (without research staff present); videos were coded as an objective measure of family functioning.

Results: The proposed model had good fit based on the root mean square error of approximation (RMSEA) = .055 (90% CI: .023 to .084). Caregiver daily hassles were associated with caregiver mental health (e.g., depression, anxiety, hostility), which significantly impacted child lung function, which finally predicted child QOL. In a separate pathway, family functioning (e.g., family routines and rituals, mealtime observation) impacted both child lung function and child QOL.

Conclusions: Findings suggest two pathways within families that may impact both child lung function and QOL. Provider discussions and strategies to improve asthma outcomes may need to target multiple factors (e.g., caregiver daily hassles, caregiver mental health, family functioning) within families to account for these processes.

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B041b 6:00 PM-7:00 PM
AN EVALUATION OF THE “PROTECT THEIR FUTURE” PARENT EDUCATIONAL VIDEO ON RECEIPT OF ADOLESCENT HPV IMMUNIZATIONS
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Medical records were reviewed for 202 Appalachian Kentucky adolescents from 166 parents enrolled in a group (n=14) randomized controlled vaccine education intervention trial. This group included 88 adolescents from parents receiving the intervention. For HPV vaccination, 177 adolescents had not started the series at the beginning of the trial; the vaccination rate was for dose one was 6.8% after medical record review. Among the 86 children from parents receiving the intervention, 11.6% (n=10) received first dose HPV, 11.6% (n=10) received second dose HPV, and 2.2% (n=2) received full HPV vaccination, compared to the 91 adolescents whose parents were in the control group, where 2.2% (n=2) received both dose one and dose two, and 1.1% (n=1) received all three doses of the HPV vaccine. Marginal models corresponding to the type of outcome were fit using generalized estimating equations (GEE) to account for the potential of outcomes to be nested within clusters such as type of intervention site (community enrolled vs. clinic enrolled), provider site, and parents. After accounting for provider-level differences, adolescents whose parents were enrolled in the video education intervention were significantly more likely to receive first dose and second dose HPV vaccination (p = .01), with differences declining as fewer adolescents returned to receive the third dose in both groups (p=.07). Although more children in the intervention group also completed three doses of the vaccination, due to the rare occurrence of series completion in the dataset, the study was insufficiently powered to determine whether the effect of the intervention improved adherence to the HPV vaccine series. The study did not show significant differences in immunization outcomes by parent education context (clinic or community setting). However, significant sex differences remained for HPV immunization outcomes. The immunization outcome data also confirm that although HPV vaccination outcomes were successful for female adolescents, no male adolescents in the intervention or control group received HPV vaccination during the trial period. Additional research is also needed on male HPV vaccination rates among area providers to confirm practice behavior.

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B045a 6:00 PM-7:00 PM
HEALTH RISK AND QUALITY OF LIFE IN LATINA YOUNG ADOLESCENTS
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Objective: Few studies have examined health risk behaviors, including suicide and depression symptoms, tobacco, alcohol and illicit substance use, in Latina (female) adolescents in comparison to peer groups. Further, no study has provided data on quality of life (QOL) specifically for Latina adolescents. The present study aimed to examine vulnerabilities in health risk behaviors and QOL of Latina youth, early in adolescence, ages 10-11.

Method: Data were from the Healthy Passages study, which enrolled 4,824 African American, Latino, and White 5th graders (ages 10–11) in three U.S. metropolitan areas. Suicide and depression symptoms were measured with the self-report form of the Major Depressive Disorder DISC Predictive Scale. Tobacco, alcohol, and illicit substance use were self-reported with items from YRBSS. Adolescents reported their own QOL using the PedsQL. Adolescents reported their own QOL using the PedsQL.

Results: Latina adolescents reported a significantly higher prevalence of suicide ideation and depression symptoms and significantly lower QOL (overall, physical, and psychosocial) than White female adolescents. Latina adolescents reported significantly lower overall and physical QOL than African American female adolescents. Latina adolescents reported a significantly higher prevalence of alcohol use and significantly lower physical QOL than Latino (male) adolescents.

Conclusion: Latinas display some vulnerabilities in comparison to peer groups already in early adolescence. Health risk behaviors and QOL appear to differ among racial/ethnic groups, suggesting that interventions may need to target racial/ethnic groups differently.

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Background: Indoor tanning is an established risk factor for skin cancer. Despite this knowledge, indoor tanning is common among minors. Regulatory efforts are in place in some states to limit access to indoor tanning by minors, but there is limited research on industry compliance with these laws.

Methods: We conducted a telephone survey with a random sample of businesses (n=412) offering ultraviolet (UV) indoor tanning in the 14 states with implemented indoor tanning bans for minors as of May 2015. We obtained lists of relevant businesses from Yellowpages.com. Female research assistants posing as 16 or 17 year old minors (based on state’s law) conducted non-recorded telephone interviews with employees using a standardized script to assess compliance with the law and knowledge of health effects of tanning.

Results: The majority of businesses (73.5%) told the minor caller that she could not use the UV tanning facilities. However, 12.6% told her she could tan, 6.6% told her she could tan with parental permission once she reached age stated in the ban, 6.3% said she could tan with parental permission, and 1.0% said it “depended.” Among the subset of businesses (n=368) that completed the full interview, when asked about dangers from indoor tanning, 52.2% identified burning and 20.1% mentioned skin cancer. However, 21.7% said dangers were no worse than sun, 11.4% said the booths in their business were safer than others, and 10.3% said there were no dangers. Many businesses stated benefits when asked, including vitamin D (27.7%), social/cosmetic (27.2%), and treatment of skin diseases (26.4%), with only 4.9% stating there were no health benefits.

Conclusion: While almost three-quarters of businesses followed the current indoor tanning bans when a minor called, approximately one-quarter were noncompliant. Many of the businesses made inaccurate health claims about indoor tanning. Additional ban enforcement may be necessary to increase compliance and federal or state regulation may be needed to penalize businesses from stating health benefits and presenting false risk information.

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LATINO PARENTS’ PERCEPTIONS OF THE EATING AND PHYSICAL ACTIVITY EXPERIENCES OF THEIR PRESCHOOLERS AT CHILD CARE HOMES AND AT HOME

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**Background:** Given obesity trends in Latino preschool children, there is a need to better understand the influence of early education and care and the home settings in which early eating and physical activity behaviors develop. Caregivers (i.e., child care providers and parents) beliefs, attitudes, and practices related to children’s eating, physical activity, and sedentary behaviors influence physical activity and eating opportunities. Currently, more than half a million (0.65 million) preschool children attend family child care home (FCCH) settings. Latino families use preschools and day care centers much less than other ethnic groups, and prefer to send their children to FCCHs. **Methods:** This qualitative study examined Latino parents’ perceptions (n=36) of their children’s eating and physical activity experiences at FCCHs and at home. Four focus groups were conducted in Spanish. Translated transcripts were analyzed using thematic analysis to identify key concepts and themes. **Results:** Analyses revealed that Latino parents perceive that their children have healthier eating and physical activity experiences at FCCHs than at home, and that Latino parents perceive FCCH providers as trustworthy and more capable than themselves of providing a healthful eating and physical activity environment due to having more knowledge, time and resources. **Conclusions:** Future interventions targeting young children’s healthy eating and physical activity behaviors should consider integrating the social environments of the home and the FCCH and aim at incorporating both parents’ and FCCH providers’ perspectives on the design and content of such interventions that leverage their unique relationship. Thus, the interaction between these two early social settings—that is, home and family child care homes—should be considered when developing collaborative efforts between parents and family child care providers to maximize the promotion of children’s early healthy eating and physical activity behaviors. As children’s habits are initiated very early in life, intervention programs addressing these areas may have immediate health benefits, as well as help to reduce long-term chronic disease risks when learned habits and preferences are carried into adulthood. Interventions involving Latino FCCH providers may prove to be an effective way to target and engage low-income, Latino families in obesity prevention efforts.

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ASSOCIATION BETWEEN SELF-EFFICACY AND DRINKING IN AN HIV-INFECTED SAMPLE: RESULTS FROM A LARGE RANDOMIZED CONTROLLED TRIAL

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Heavy drinking among HIV-infected individuals is associated with health complications and poor medication adherence. Preexisting low health-behavior self-efficacy may interfere with health promotion and maintenance among an HIV-infected population. Moreover, psychological reactions to living with HIV may further test HIV-infected individuals’ health behavior self-efficacy and ability to cope with difficulties without reliance on alcohol. A recent clinical trial testing brief alcohol interventions in HIV primary care demonstrated efficacy in reducing drinking. However, whether self-efficacy to resist drinking in high-risk situations became greater and predicted drinking behavior among HIV-infected individuals enrolled in this drinking reduction intervention remained unclear. We assessed associations between changes in self-efficacy during intervention with drinking at the end of an alcohol intervention (approximately 60 days after baseline) and end-of-study (approximately 12 months after baseline) among 147 heavy drinking, HIV primary care patients. We used regression analyses to determine the relationship between change in self-efficacy from baseline to end-of-intervention with drinking behavior at both end-of-intervention and end-of-study. Increases in self-efficacy from baseline to end-of-intervention predicted end-of-intervention drinking; including lower drinking frequency (incident rate ratio (IRR)=0.90, p < 0.05), lower binge drinking (IRR=0.88, p < 0.05), and lower drinking quantity (IRR=0.88, p < 0.05). Additionally, increases in self-efficacy from baseline to end-of-intervention predicted drinking behavior at end-of-study (12 month follow-up); including lower drinking frequency (IRR=0.87, p < 0.05), lower binge drinking, (IRR=0.86, p < 0.05), and lower drinking quantity (IRR=0.87, p < 0.05). Results suggest that change in self-efficacy is an important predictor of drinking reduction in HIV primary care, having short-term and longer-term benefits. Interventions that promote self-efficacy may thus be helpful in reducing drinking among an HIV-infected population.

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A LINK BETWEEN CHILDHOOD SEXUAL ABUSE AND HIV SERODISCORDANT SEX AMONG DIVERSE MEN WHO HAVE SEX WITH MEN (MSM)

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Childhood sexual abuse (CSA) is a risk factor for HIV via serodiscordant unprotected anal intercourse (SUAI) among MSM. Safer sex norms, frequently protective against SUAI, are presumed ineffective in sexual encounters under the influence of drugs and alcohol, or characterized by cognitive disengagement. However, few have investigated these complex sets of variables together; thus, we tested a link between CSA and SUAI in a chain-referral sample of 400 Latino, 393 Asian and Pacific Islander (API), and 403 African American (AA) sexually-active MSM (aged 18+) recruited in Los Angeles.

We tested a moderated-mediation model where CSA [X] would be associated with SUAI [Y] through three mediators: illicit drug use [M1], binge drinking [M2], and total # of sex partners [M3] over the prior 6 months. However, we assessed how safer sex norms established between friends [Z] would moderate the aforementioned mediation. Data collected by computer-assisted self-interviews included demographic information, measures of CSA, illicit drug use and binge drinking, safe sex norms, and HIV SUAI. A regression-based bootstrapping approach was used.

In the total sample, 19% reported CSA, 42% reported binge drinking and 29% illicit drug use; 33% reported SUAI. Safe sex norms were identical for each group of MSM. In our moderated-mediation, CSA (X) was positively associated with binge-drinking ([M2], b=.45, p=.02) and # of sex partners ([M3], b=.39, p=.04), but not illicit drug use ([M1], b=.11, p=.38). For predicting odds for SUAI [Y], only the total # of sex partners [M3] was positively associated with SUAI. Lastly, when safer sex norms were lowest, the effect of CSA on SUAI through # of sexual partners was greatest (OR = 1.24; p < .05). When safer sex norms were highest, the odds for SUAI was reduced (OR = 1.09; p < .05).

CSA was linked to greater number of sexual partners and increased odds for SUAI in this racially/ethnically diverse sample, but this effect was mitigated by the presence of higher safer sex norms. Safe sex norms may not be protective against SUAI under the influence of drugs or alcohol.

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INDIRECT EFFECTS OF FOOD, HOUSING, AND TRANSPORTATION INSECURITY ON ARV ADHERENCE: A HIERARCHICAL RESOURCES APPROACH

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Background
Lack of access to basic necessities (e.g., food, housing, transportation) are associated with suboptimal antiretroviral (ARV) adherence among people living with HIV/AIDS, a condition that disproportionately affects people living in poverty. Thus those most affected by HIV face substantial barriers to ARV adherence.

Facing conditions of poverty can also reduce supports, including social support and access to care services. As a consequence, personal resources such as self-efficacy may suffer, reducing ARV adherence. These effects may also differ across gender.

Purpose
This study used multiple group structural equation modeling to examine a multiple mediation model in which lack of access to basic resources (housing, food, transportation) were mediated through lack of support resources (social support, services) and lack of personal resources (self-efficacy) to affect ARV adherence.

Methods
Participants were 915 HIV-positive men and women living in Atlanta, GA, with prospective data on ARV adherence.

Results
Multiple group confirmatory factor analysis was used to establish measurement invariance across genders. Predictors were highly correlated indicating that barriers to adherence commonly co-occur. Structural regression analysis showed a significant direct effect of lack of access to transportation on adherence. Across a series of nested models, a consistent pattern emerged whereby lack of access to basic resources had indirect negative effects on adherence mediated through both lack of access to social support and services, and lower treatment self-efficacy.

Housing instability, food insecurity, and lack of transportation have significant negative effects on adherence. Effects for housing instability and food insecurity were fully mediated through supports and self-efficacy, highlighting these as important targets for intervention. Inability to access transportation, however, had a direct negative effect on adherence. Providing free or reduced cost transportation could positively impact ARV adherence among disadvantaged populations.

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POSITIVE LINKS: A TAILORED MOBILE PHONE APPLICATION FOR PEOPLE LIVING WITH HIV IMPROVES ENGAGEMENT IN CARE AND CLINICAL OUTCOMES

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Background: People living with HIV (PLWH) face complex challenges to engagement in HIV care. Many of these are partially addressed during clinic visits, but many remain unmet. To help to address challenges faced outside the clinic, a smart phone application (app) was developed in partnership with PLWH at a non-urban clinic. The Positive Links (PL) program extends care beyond the clinic and promotes engagement in care by pairing the tailored smart phone app that delivers HIV education and management tools, wellness promotion strategies, and social support with responsive staff support.

Methods: The PL program has enrolled 75 individuals based on provider referral of patients poorly engaged in HIV care. The PL team provided participants with a smartphone with a voice and data plan that was loaded with the PL app. The participants also have access to the PL care coordinator through the app and in-person. Participants completed baseline and six month surveys. App use data are collected continuously. Clinical data were collected from medical records.

Results: 63% of participants are male. 48% are black. 41% are men who have sex with men. Mean age is 38, and 74% of participants report incomes below the federal poverty level. Participants reported high levels of stigma and stress at baseline. They reported housing insecurity (26%), transportation (23%), and food insecurity (37%) as challenges. Participants used the app regularly. Mean number of interactions with the app in 180 days was 297 (range: 0-598). At baseline, 48% of participants had attended 2 visits separated by 90 days in the past 12 months. Six months follow-up 92% (69/75) achieved this benchmark of engagement in care. In a multivariate regression that controlled for demographics (age, gender, and race), HIV symptoms (B = .26, t = 3.77, p < .05), HIV-related stigma (B = .22, t = 3.12, p < .05), shift and persist strategies (B = -.20, t = -2.66, p < .05), social rejection (B = .21, p < .05), and perceived stress (B = .20, t = 2.473, p < .05) remained as correlates of SRH. Our results suggest that self-rated health in PLWH is a multidimensional construct that is influenced not just by physical symptoms associated with HIV, but by psychosocial variables that may be modifiable through interventions designed to improve coping and reduce HIV-related stress.

Conclusions: Positive Links combines a tailored mobile app with clinic-based care coordination. Over six months, the intervention significantly increased engagement in care and improved clinical outcomes in a high-risk population of PLWH.

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PSYCHOSOCIAL CORRELATES OF SELF-RATED HEALTH AMONG HIV-INFECTED MEN AND WOMEN

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Self-rated health (SRH) is a robust predictor of mortality and morbidity in general population studies and may relate to long term health outcomes among persons living with HIV/AIDS (PLWHA). We sought to clarify the relation of psychosocial factors and HIV symptoms to SRH in an outpatient sample of PLWHA receiving care in Upstate New York (N = 214; 62% male; 43% African American). Participants completed an audio computer assisted survey that included validated measures of depressive symptoms, HIV-related symptoms, "shift and persist" strategies, perceived stress, social rejection, and HIV-related stigma. Self-rated health was assessed with a single item asking participants to indicate how they would describe their health, with response options ranging from 1 (excellent) to 5 (poor). In the first set of analyses, partial correlations identified depression (r = .33, p < .05), HIV symptom severity (r = .43, p < .05), shift and persist strategies (r = -.43, p < .05), perceived stress (r = .43, p < .05), social rejection (r = .21, p < .05), and HIV-related stigma (r = .41, p < .05) as correlates of SRH. In a multivariate regression that controlled for demographics (age, gender, and race), HIV symptoms (B = .26, t = 3.77, p < .05), HIV-related stigma (B = .22, t = 3.12, p < .05), shift and persist strategies (B = -.20, t = -2.66, p < .05), and perceived stress (B = .20, t = 2.473, p < .05) remained as correlates of SRH. Our results suggest that self-rated health in PLWHA is a multidimensional construct that is influenced not just by physical symptoms associated with HIV, but by psychosocial variables that may be modifiable through interventions designed to improve coping and reduce HIV-related stress.

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Sleep (17%), cognition (14%), stress (12%), and adjustment to MS (9%). A
ing (8%), and adjustment to HIV (7%). For PLwMS they were depression (22%),
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greater percentage of PLwHIV than PLwMS endorsed concerns with substance use (p < .01). A greater percentage of PLwMS than PLwHIV endorsed concerns with sleep functioning (p < .05), activity level (p < .05), and cognition (p < .01). No other significant differences were observed.

Of the 740 patients, 55% of PLwHIV and 59% of PLwMS (p > .05) endorsed one or more problems on the problem checklist. The top 5 reported problem checklist items for PLwHIV were depression (22%), stress (11%), sleep (11%), smoking (8%), and adjustment to HIV (7%). For PLwMS they were depression (22%), sleep (17%), cognition (14%), stress (12%), and adjustment to MS (9%). A greater percentage of PLwHIV than PLwMS endorsed concerns with substance use (p < .01). A greater percentage of PLwMS than PLwHIV endorsed concerns with sleep functioning (p < .05), activity level (p < .05), and cognition (p < .01). No other significant differences were observed.

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Chi squares examined rates of consistency between populations. People were
coded as consistent if the response pattern (endorsed/positive or not) was the
same on both the problem checklist AND its related screener. Among PLwHIV,
80% showed consistency in response for depression, versus 85% of PLwMS
(p > .05). Among PLwHIV, 81% were consistent in response to substance abuse,
versus 97% of PLwMS (p < .01). However, no PLwMS reported substance abuse
problem on the problem checklist. Among PLwHIV, 89% evidenced consistency in
response for trauma symptoms (despite that trauma was a write-in item on the
problem checklist), versus 93% of PLwMS (p > .05).

These results may help providers anticipate their patients’ presenting concerns,
discrepancies in reporting style (with screeners and problem checklists
capturing what the other misses), and underreporting.

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Understanding the needs of different patient populations, disparities in how
corns are communicated, and when underreporting is likely to occur are pivotal for connecting patients to appropriate care. This study examines the
reporting differences of common concerns between persons living with HIV
(PLwHIV; n = 481) and with MS (PLwMS; n = 259) seen at Multiple Sclerosis
and Infectious Disease clinics in the southeast, and assessed via an 18-item
problem checklist, the PHQ-2, the TICS, and the PC-PTSD.

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THE ROLE OF PAIN IN QUITTING AMONG HIV POSITIVE SMOKERS ENROLLED IN A SMOKING CESSATION TRIAL

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Background: Smoking rates among people living with HIV/AIDS (PLWHA) are at least twice as high as rates in the general population. Consistent with the reciprocal model of pain and smoking, PLWHA with pain who smoke may use smoking as a means of coping with pain, thus presenting a potential barrier to quitting. The aim of this study is to better understand how pain relates to smoking cessation among 474 HIV-positive adults enrolled in a cell-phone delivered smoking cessation trial.

Participants and Methods: The mean age of participants was 44.8 (SD= 8.07) years. The majority of participants (76.58%, n= 363) were African American. Participants smoked an average of 19.15 (SD = 11.54) cigarettes per day at baseline. Participants were randomly assigned to either usual care (cessation advice and self-help materials) or 11 sessions of cell-phone delivered smoking cessation treatment, designed from a cognitive-behavioral framework. Pain, as assessed by the Medical Outcomes Study-HIV Health Survey (MOS-HIV), and 24-hour and 7-day point prevalence abstinence were collected at the 3-month treatment end and at 6-, and 12-month follow-ups. Self-reported abstinence was biochemically verified by expired carbon monoxide (CO) level of ≥7 ppm.

Results: Using multilevel modeling for binary outcome data, we examined the relationship between pain and abstinence, from treatment end through the 12-month follow-up. Consistent with our hypothesis, less pain was associated with greater likelihood of 24-hour (β= .01, p(651) = 2.36, p= .02) and 7-day (β= .01, p(651) = 2.22, p=. .03) point prevalence abstinence, controlling for age, gender, baseline pain, and treatment group. No pain x treatment group interaction was observed.

Conclusions: These results can help us to better identify PLWHA at greater risk for relapse in smoking cessation treatment. Future research may examine the effectiveness of more comprehensive smoking cessation treatment that incorporates aspects of pain management for PLWHA who smoke and have high pain and symptom burden.

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QUALITY OF LIFE IN PEDIATRIC RENAL TRANSPLANT RECIPIENTS

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Introduction: Quality of life is a critical consideration when working with people who have chronic illnesses, particularly renal transplant and ESRD. Aspects of quality of life are directly associated with health outcomes, including patients' adherence and morbidity and mortality. However, many studies have documented these concerns in the adult population while few have focused on a pediatric renal transplant population. The purpose of the current study was to conduct an updated examination of quality of life scores among pediatric patients over the past year at a pediatric renal transplant center.

Methods: Data included self-report and/or proxy responses for 39 patients (66% male; 2-17 years). Patients were renal transplant recipients. Patients and caregivers completed the Pediatric Quality of Life Inventory™ 4.0 Generic Core Scales and the Pediatric Quality of Life Inventory™ 3.0 Transplant Module (2-17 years). The Generic Core survey includes questions in four domains (i.e., physical, emotional, social, and school functioning).

Results: Parent proxy report average Total score for the PedsQL Generic Core modules was 73.58, and 80.08 for the Transplant Module. Child self-report average Total score for the PedsQL Generic Core survey was 75.18, and was 77.34 for the Transplant Module. When examining specific domains on the Generic Core survey, parent report tended to be lowest in the School domain (61.76) followed by the Emotional domain (75.92). Similarly, child report was also lowest in School (59.29), followed by Emotional (77.64). On the Transplant module, parent scores were lowest in Treatment Anxiety (62.01), followed by Worry (75.37). However, child report on the Transplant module was lowest in Transplant and Others (69.56), followed by Treatment Anxiety (72.37).

Conclusions: These results extend prior research by providing an updated examination of quality of life in a pediatric renal transplant population, including consideration of parent and child differences, as well as identification of lowest QOL domains. This could inform intervention strategies aimed at improving quality of life for pediatric patients. This is particularly important given that quality of life has been associated with various health outcomes. Thus an understanding of quality of life could guide intervention, and ideally improve mental and physical health outcomes for these patients.

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RACIAL/ETHNIC DISPARITIES IN HEALTH-RELATED QUALITY OF LIFE OVER THE FIRST TWO YEARS AFTER BURN INJURY

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People with burn injury experience high rates of psychological morbidity. The longitudinal racial/ethnic disparities of physical and mental health-related quality of life (HRQOL) among burn injury survivors have not been investigated. We aimed to determine whether racial/ethnic differences in physical and mental HRQOL at discharge, 6 months, 1 year, and 2 years post-rehabilitation discharge. A prospective design was utilized in this multicenter study of individuals with burn injury participating in the National Institute on Disability and Rehabilitation Research (NIDRR) Burn Model Systems study. Medical, demographic, and outcome data were obtained from the Burn Model Systems database at discharge, 6 months, 1 year, and 2 years post-discharge. Individuals with mild to severe burn injury aged 18 or over (N = 1,246) consecutively admitted for acute care and comprehensive inpatient rehabilitation at a Burn Model System hospital. The Short Form 12 assessed physical and mental HRQOL at all time points. Hierarchical linear models controlled for covariates of HRQOL (age, gender, employment status, and total burn surface area percent). The models indicated a significant interaction between time and Black non-Hispanic race/ethnicity for mental HRQOL (b = -1.00, p = .003), such that White individuals tended to improve over time, whereas Black/African Americans declined over time and remained low. The Hispanic versus Black by time interaction was also significant (b = 1.23, p = .015) such that Hispanic individuals tended to improve between discharge and 2 year, with a decline between 1 and 2 years post-discharge compared to Black individuals who had a slow decline over time. Hispanic individuals had significantly higher physical HRQOL compared to White individuals (b = 2.14, p = .034). There was a significant time by race interaction for both African American and Hispanic individuals versus Whites (b = -.74, p = .020; b = -.94, p = .010, respectively). Whites improved their physical HRQOL more rapidly than Black and Hispanic individuals, however by year 2 post-discharge Whites and Hispanics had comparable physical HRQOL, while Black individuals had slightly lower scores at year 2. HRQOL growth curve patterns of burn survivors change disparately based upon race/ethnicity across the first 2 years post-discharge. Further research will be required in order to understand the complex factors underlying these differences.

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RELATIONSHIP BETWEEN DEPRESSION AND PERFORMANCE-BASED AND SELF-REPORT FUNCTIONAL CAPACITY IN STROKE SURVIVORS

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Stroke survivors’ cognitive and functional difficulties have been shown to be associated with lower quality of life and increased symptoms of depression. However it is unclear whether this relationship reflects an association with actual functional impairment or perceived functional impairment. Self-reported perceptions of functional abilities may reflect an overestimation or underestimation of stroke survivors’ actual functional abilities. A more accurate method to assess daily functioning in stroke survivors is via performance-based measures, which have been found to be valid assessments of daily functioning in a number of different populations. The purpose of the present study was to assess the relationship between symptoms of depression with self-report and performance-based measures of everyday functioning. Fifty stroke survivors (M age = 62.10, SD = 9.05) participated in this study. Performance-based assessment of everyday functioning was evaluated using the University of California, San Diego (UCSD) Performance-based Skills Assessment (UPSA) and the Stroke Impact Scale (SIS). Symptoms of depression were evaluated using the Beck Depression Inventory (BDI-II). A significant negative correlation was found between SIS scores and BDI-II total scores, r (48) = -.47, p = .001, as the two measures are scaled in opposite directions. However, no significant correlations were found between the UPSA total scores and BDI-II total scores, r (48) = -.23, p = .102. These findings indicate that the association between depression and functional capacity differs depending on the method used to assess everyday functioning. The finding that the association held true only for perceived functional ability suggests that interventions may target those perceptions and perhaps reduce symptoms of depression.

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TELEPHONE ADMINISTERED COGNITIVE BEHAVIORAL THERAPY FOR DEPRESSION: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Cognitive Behavioral Therapy (CBT) is often considered the gold-standard treatment for depression. However, there have been mixed results regarding its efficacy when delivered via non face-to-face modalities.

This systematic review and meta-analysis assessed the overall efficacy of telephone-administered CBT (T-CBT) versus treatment as usual (TAU) among adults with depression. Database searches (PUBMED, Cochrane Review, and PsychInfo) were conducted to identify RCTs comparing the effectiveness of T-CBT versus TAU among adults presenting with depression published between January 1996 and December 2015, from which 47 studies were identified. Of these, 16 were telephone administered but only 4 were CBT specific and met inclusion criteria. The four studies included in this review (n=655) evaluated effectiveness of T-CBT against TAU across varying session duration and treatment follow up using self-report measures. The effect of T-CBT on reported depression symptoms varied by study, with the positive mean of the distribution of the effects demonstrating a greater reduction of depression symptoms using T-CBT, $d=.355$ (95% CI: .064 -.646, $p=.017$). The fail-safe N suggested that 21 studies with null results would be required to drop the current effect to non-significance, suggesting that the effect is not likely to be affected by unpublished null results. Additionally, homogeneity across studies is assumed ($Q=2.449$, $p=.485$). There was no evidence of publication bias.

These findings suggest that T-CBT is an effective treatment for decreasing symptoms of depression. The limited number of available studies for review demonstrates the need for further research in this area, which could include potential moderating variables that may impact strength of effect and identification of efficacy of treatment over time. Despite these limitations, these results suggest T-CBT holds promise as an alternative to face-to-face psychotherapy and potentially enhancing access to evidence-based care.

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B077a 6:00 PM-7:00 PM

FOOD INSECURITY AND OBESITY RISK: BEHAVIORAL CORRELATES OF INCOME AND FOOD INSECURITY IN BALTIMORE ADOLESCENTS AND MOTHERS

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Obesity rates in the United States have reached unprecedented highs and food insecurity impacts many low-income Americans. The current project aims to explore potential obesogenic impacts of food insecurity on eating behaviors, eating-related attitudes, and parental feeding practices in a sample of Baltimore families. So far, data have been collected from 39 adolescents (18 male, 21 female; age 14-18 years) and their biological mothers. Based on a brief food insecurity screener, 11 of these families are food insecure (6 obese, 2 overweight, 3 lean adolescents) and 28 food secure (4 obese, 7 overweight, 17 lean adolescents). There was a significant relationship between race and food insecurity, such that of the food insecure families, 7 (64%) were African-American (AA) and 1 (9%) white, while of the food secure families, 17 (61%) were white, and 11 (25%) AA. Eating behavior data collected during a multi-item ad libitum meal administered in the lab revealed that girls who were food insecure vs. secure and had higher vs. lower income consumed a higher percentage of total calories from less healthy, high energy-density foods. Eating-related attitudes assessed via self-report questionnaires revealed that food insecure and lower income mothers reported less emotional eating and restrained eating practices. Adolescents from lower income families also demonstrated marginally less restrained eating, as well as less nutrition knowledge. Parental feeding practices assessed via a parent-report questionnaire showed that lower income mothers used more pressure to eat. All of these relationships were present when controlling for child BMI z score (for adolescents’ eating-related attitudes and parental feeding practices) or for maternal BMI (for mothers’ eating-related attitudes). The results of this ongoing project promise to reveal more about the effects of food insecurity and low income on obesity-related behaviors in both teenagers and parents, and could help inform public health initiatives to decrease obesity in low-income, ethnic minority groups.

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GOAL SETTING IN A TECHNOLOGY-ASSISTED HEALTH COACHING INTERVENTION FOR VETERANS IN PRIMARY CARE: A QUALITATIVE ANALYSIS

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Background: Obesity is a growing concern among Veterans. Our formative work with Veterans and primary care (PC) teams demonstrated acceptability of goal setting for weight management. Goal setting is a common, evidence-based counseling strategy. As part of a PC-based weight management intervention called MOVE! Toward Your Goals (MTG), Veterans use an online tool (MTG tool) to make initial weight loss and behavior change goals, then work with a health coach on goal refinement. We aimed to qualitatively characterize goals made by Veterans participating in a pilot study of the MTG intervention and evaluate goal setting processes.

Methods: Overweight/obese Veteran PC patients from an urban VA were recruited (Round 1 of testing was lab-based; Round 2 was clinic-based). At baseline, Veterans used the MTG tool to create initial goals around weight loss, nutrition, and physical activity. A health coaching session followed, delivered by a research team member trained in motivational interviewing and health coaching protocols. Review of pre-/post-surveys, session audio-recordings, and health coaching notes were used to categorize goals and compare them to data from MTG tool output.

Results: Twenty-one Veterans that participated in Rounds 1 (n=10, 60% female) and 2 (n=11, 9% female) had a mean age of 58.57 years (SD=10.50 years), and mean BMI of 30.58 (SD=3.5). Prior to completing the MTG tool and receiving health coaching, 33% of Veterans indicated "not at all true of me" that they had a specific plan to lose weight. In Rounds 1 and 2, the MTG tool facilitated 100% of patients to choose a weight loss, 1-2 nutrition, and a physical activity goal. During health coaching, 86% set a weight loss goal, 86% set at least 1 nutrition goal, and 71% set a physical activity goal.

Conclusion: Preliminary results suggest that the MTG intervention facilitates goal setting for weight loss and lifestyle change to manage weight. Findings were used to develop best practices, health coaching guides, and trainings for future studies.

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IMPACT OF A ONE-YEAR TEXT MESSAGE INTERVENTION ON PHYSICAL ACTIVITY AND DIET IN OVERWEIGHT/OBESE ADULTS: CONTEXT

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Purpose: Little is known about the comparative efficacy of delivering obesity interventions via SMS vs SMS plus phone coaching (SMS+), an important issue when considering cost and reach. We present behavioral outcomes from a 3-arm RCT that compared a weight-loss intervention targeting changes in physical activity (MVPA) and diet in overweight/obese, English/Spanish-speaking adults delivered via SMS or SMS+, with a print delivered educational control.

Methods: 298 adults (BMI > 27 to 39.8; age 21-60; 122 Hispanic) were randomized to one of the three conditions and assessed at baseline, 6 and 12 months. The interventions offered 2-4 messages/day (in English or Spanish) personalized and tailored on baseline weight management strategies, iterative interactive messaging supporting self-monitoring of MVPA and diet, and goal setting with like/unlike messaging control. Monthly 10-15 minute coaching calls focused on goal setting and barriers to weight loss. Mixed effects models using a random intercept for person evaluated percent change in accelerometer-derived MVPA, and change in self-reported caloric consumption over time. Participants providing > 4 days of accelerometer data (N=253) were included in the analyses.

Results: At baseline, participants spent 3% (+1.97) of their day in MVPA or 24.80 mins/dy (+16.75). Adjusting for wear time, those in the SMS or SMS+ groups did not engage in more MVPA over time compared to those in the control (ps > 0.3). Predicted values indicate that 12 months participants engaged in 2.86% (control), 3.26% (SMS) and 3.02% (SMS+) MVPA per day. At baseline, participants consumed 2213 kcal/dy (+1275.38). There was no difference in change over time across groups (ps > .5). Predicted values indicate that at 12 months participants consumed 1620.85 kcal/dy (control), 1324.79 kcal/dy (SMS) and 1712.2 kcal/dy (SMS+).

Conclusion: Although the main outcome analysis found that the SMS+ group lost weight compared to the control over time, we did not find support that this was explained by changes in MVPA or self-reported kcal consumption.

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Purpose: To determine the impact of joining a group-based weight management program with a spouse or relative on program adherence and weight change.

Methods: A total of 22 adult participants in an academic weight management program were identified as having enrolled in the program with a spouse or immediate family relative within the last two years. Participants enrolling in the program alone within the last two years were searched and matched to joint enrollers by gender and age (± 24 months). Joint enrollers who did not have a matched control for gender and age were excluded (n=2). Twenty adults joining with a spouse or relative (Pair Enrollment, 60% female, mean age 51.5 years) and 20 matched control participants (Solo Enrollment, 60% female, mean age 51.2 years) were compared for weight change, attendance and drop-out rate over the first 12 weeks of a group-based weight management program.

Results: Baseline weight was not different between groups, nor was baseline weight associated with weight loss during this study. Mean weight loss was greater for Pair Enrollment than for Solo Enrollment at 4 weeks (7.0 ± 2.1% vs 4.4 ± 1.5%, p=0.001), and 12 weeks (12.4 ± 2.8% vs 9.8 ± 3.7%, p=0.022). MANOVA showed a significant change in weight change over time for both groups (p=0.001). Between groups, Pair Enrollment resulted in greater weight loss at all time points, (p=0.004), with the advantage to joining as a pair compared to alone being an average 2.7% (Range 2.5% to 3%) greater weight loss. Attendance was greater in Pair Enrollment (93.8%) than in Solo Enrollment (85.7%, p=0.043), and hierarchical linear regression analysis revealed a significant association between overall attendance and greater weight loss (p=0.001). Drop-out rate during the first 12 weeks of the program was not different between groups.

Conclusion: Our data indicate greater success in a weight management program for individuals who join with a spouse or relative than for those joining alone, potentially due in part to greater attendance. Future studies should evaluate the long-term impact of joint enrollment on weight loss and weight maintenance.

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PARENTING FACTORS AND PHYSICAL ACTIVITY LEVELS IN OVERWEIGHT AFRICAN AMERICAN ADOLESCENTS

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Overweight adolescents are less likely to meet physical activity (PA) recommendations as compared to healthy weight youth. Family environment and parenting practices, such as authoritative parenting, autonomy support, emotional support, resources for PA, and modeling may influence PA levels. However, few studies have examined the relationship between parenting factors and PA in African American youth. Past research has also often utilized less-reliable self-report measures of PA and focused on moderate-to-vigorous PA (MVPA). This study expands on past literature by examining associations between parenting factors and objectively-measured light PA (LPA) as an outcome, which may be more feasible to influence in populations who may experience increased barriers to more intense levels of PA. Participants were African American adolescents (N = 148; Mage = 13.56 years; 66% female; MBMI% = 96.54) and their caregivers (Mage = 43.36 years; 94% female; MBMI = 37.41) who were enrolled in the Families Improving Together (FIT) for Weight Loss trial. Parenting factors were measured using self-report surveys, and minutes of PA were measured using Actical accelerometers. Regression analyses indicated that the overall model was significant (F(10, 136) = 6.13, p < 0.05; R² = 0.31). Parenting style (B = 16.43, SE = 4.37), emotional support (B = -10.27, SE = 4.79), and home environment (B = 9.55, SE = 3.97) significantly predicted child LPA. In contrast, parenting factors did not significantly predict youth MVPA beyond covariates. Results provide initial support that LPA was associated with parenting factors in overweight African American youth. Factors related to general climate (parenting style and home environment) were most strongly associated with LPA overall. High levels of emotional support were associated with lower levels of LPA, consistent with some previous studies. Future interventions should aim to improve home climate (authoritative parenting, PA resources) to encourage higher rates of LPA in overweight, African American youth.

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NOVEL FORMS OF INTERNET MEDIA, BODY IMAGE, AND DISORDERED EATING

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Research demonstrates a link between appearance-oriented Internet media (e.g., fashion websites), social-networking sites (SNSs), body dissatisfaction, and disordered eating (DE). Further, Internet usage, particularly on SNSs, accounts for more variance in body dissatisfaction than television and magazine exposure. Of note, a recent study found that online appearance comparison and “fat talk” (i.e., negative talk about one’s body) drives an increase in DE rather than mere usage of SNSs. The current study explored relations between Internet media use (e.g., picture applications) with body dissatisfaction and DE. Females (N=776), ages 18-45 (M=19.75), completed an online survey. On average, participants reported spending approximately 6 hours or more (for leisure) a day on various websites and applications. Daily Internet usage was related to frequency of posting “selfies” (r = .299, p < .014). Research should elucidate the relation between DE behaviors and attitudes including restraint (r = .096, p = .088), eating concern (r = .13, p = .17, r = .16, p = .23, r = .05) and health/fitness sites (r = .033, p = .001) compared to those who did not. Laxative users were also more likely to visit health/fitness sites than non-users (r = -4.98, p = .002). Unsurprisingly, compulsive exercisers were more likely to visit health/fitness sites (r = -1.999, p = .046). Finally, people who engaged in binge eating episodes reported higher frequencies of visiting SNSs (r = 2.10, p = .036), fashion blogs (r = 2.65, p = .008), fashion/beauty sites (r = 2.06, p = .039), health/fitness sites (r = 3.696, p = 2.48, p = .014). Research should elucidate the relation between DE behaviors and Internet media use.

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OBESOGENIC BEHAVIORS AMONG SCHOOL-AGED CHILDREN BORN WITH LOW AND HIGH BIRTH WEIGHT

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Introduction: Environmental modifications during fetal development increase the risk of chronic diseases in adulthood (Barker’s “thrifty phenotype” hypothesis). There is evidence showing that exposure to intrauterine adverse events influences food preferences towards high-caloric foods, but little is known about the influence on other specific behaviors associated with increased risk of obesity. Aim: To evaluate differences of obesogenic behaviors (feeding behavior, screen time, physical activity and sleep habits) among school-aged children born with low and high birth weight.

Methods: 616 families were recruited in the Montreal Metropolitan Area. They answered questionnaires about sedentary time and physical activity level, the Child Eating Behavior Questionnaire and the Children’s Sleep Habits Questionnaire (CSHQ). Birth weight ratio (BWR) was calculated and the sample was classified in: Small for Gestational Age (SGA) if BWR<1.2.

Results: There were 282 boys (40 SGA, 37 LGA) and 281 girls (36 SGA, 29 LGA). The scores for Restrictive Eating (p=0.008) and for Emotional Overeating (p=0.024) were higher in LGA children when compared to AGA. Both SGA and LGA children showed significantly higher screen time when compared to AGA children (pBoys in general have increased screen time compared to girls. The total amount of physical activity was not different between the groups. In boys, the higher birth weight was associated to more sleep problems (r=0.236, p=0.004, n=147). In girls, this correlation was not significant (r=0.724, n=148). Conclusions: The study shows that both SGA and LGA children have increased obesogenic behaviors in comparison to AGA, although the behavioral pattern varies according to birth weight and gender. Therefore, fetal adversity seems to program a cluster of behavioral aspects generating different patterns of “thrifty behavior”, which may be contributing to the increased risk of obesity and related diseases in these populations.

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PERCEIVED WEIGHT STATUS AND WEIGHT CHANGE AMONG A U.S. ADULT SAMPLE

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Objectives: Previous research indicates that perception of weight status as overweight, regardless of actual weight status, is associated with increased risk of subsequent weight gain among youth. However, no study has examined this association among adults. This study examined the bi-directional associations between weight perception and weight change over time among adult employees participating in a worksite weight gain prevention intervention.

Methods: Data are from adult employees (N=628) across 12 public high schools in Massachusetts participating in a cluster-randomized multilevel weight gain prevention intervention. Data were collected at baseline, 12 months, and 24 months. Perceived weight status (very underweight, somewhat underweight, just right, somewhat overweight, very overweight) were obtained via self-administered surveys. Height (inches) and weight (lbs.) were measured by trained staff. Change in weight was calculated as the difference between baseline weight and weight at each follow-up timepoint. Structural equation models were used to assess bi-directional associations of perceived weight status and change in weight over time. Models were adjusted for study condition, gender, age, race/ethnicity, education level and timepoint.

Results: The sample was 67% female with a mean age of 44.1 (SD=11.8); 35.8% of the sample was overweight and 29% obese. Structural equation models indicated that baseline weight predicts subsequent perceived weight status (β=0.26; p

Conclusions: Results do not support bi-directional causality between weight perception and weight change in an adult sample.

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A NOVEL MEASURE OF AMBIVALENCE ABOUT GIVING BLOOD
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BACKGROUND: Research with stem cell and living organ donors has identified ambivalence (i.e., mixed feelings about donating) as a significant predictor of a number of important outcomes, such as decisions about donation. Accordingly, ambivalence may be an important factor in the experience of other prosocial health behaviors - namely, blood donation. Presently, there is no measure of blood donation-specific ambivalence. The goals of the current study were to: 1) develop and test a measure of ambivalence about giving blood and 2) examine the relationship between ambivalence and other blood donation-related characteristics.

METHODS: Items were adapted from a measure of ambivalence about living organ donation or developed to reflect face valid statements of ambivalence. These items were administered to 396 young adult blood donors and non donors along with other measures of blood donation-related characteristics (e.g., donation intention, attitudes, anxiety). Exploratory (EFA) and confirmatory (CFA) factor analyses were conducted to identify key items of ambivalence, and correlations between ambivalence and other variables were conducted to examine convergent validity.

RESULTS: An EFA performed on a randomly selected 50% of the sample identified two factors - Commitment and Indecision - comprised of three items each. Results of a CFA conducted on the second half of the sample indicated that the two factor model was a good fit to the data (RMSEA = .07, CFI = .99, SRMR = .04). Nondonors reported significantly more ambivalence than donors in terms of Commitment (p < .01) and Indecision (p < .01). Correlations between ambivalence and other variables revealed a number of significant relationships, including donation intention (Commitment, r = -.65; Indecision, r = -.51), attitudes (Commitment, r = -.73; Indecision, r = -.50), and anxiety (Commitment, r = .55; Indecision, r = .53).

CONCLUSIONS: The present study provides initial support for the validity of the Blood Donation Ambivalence Scale. Further studies are needed to characterize the nature of ambivalence and examine the ambivalence factors as predictors of donation behavior.

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ADJUSTMENT AND ADHERENCE IN MULTIMORBIDITY: A MIXED METHODS STUDY OF PATIENTS WITH DIABETES AND END STAGE RENAL DISEASE

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Title: Adjustment and Adherence in Multimorbidity: a mixed methods study of patients with Diabetes and End Stage Renal Disease on hemodialysis.

Authors: Konstadina Griva, Augustine WC Kang, Vanessa WY Lee, Eric Khoo & Nandakumar Mooppi.

Introduction: Patients with coexisting Diabetes Mellitus and End-Stage Renal Disease (DM-ESRD) represent the fastest growing and most frail subgroup of the ESRD population. Multimorbidity can intensify treatment demands and adversely impact behavioural and emotional outcomes. The study aimed to document prevalence and factors associated with psychological distress and adherence outcomes in DM-ESRD.

Methods: A mixed-methods study including interviews (n=61) and a cross-sectional questionnaire survey with DM-ESRD patients (n=221) in Singapore (59±9.8 years; 60.6% male; 54.8% Chinese). Administered the Hospital Anxiety and Depression Scale, UCLA Loneliness Scale, Beck Hopelessness Inventory and measures of Health Literacy, Illness/Treatment Perceptions, Nutritional Quality-of-Life and Adherence.

Results: Interpersonal tension and challenges related to appetite and complexity of diet dominated narratives. Survey data indicated high rates of distress (57%; 53.6%; 52.9%; 62.9% for depression, anxiety, loneliness & hopelessness, respectively) and non adherence (ranging between 19% to 62.9% across aspects of renal and diabetes regime components). Multivariate modelling indicated that Health Literacy dimensions (communication, support, obtaining/appraising information and Nutritional QOL were associated with distress indicators (p<0.05).

Conclusion: DM-ESRD patients find diet and health care communication/navigation challenging and experience psychological distress. Carefully tailored interventions are needed to support and empower patients for managing coexisting DM ESRD

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ALUMNI COLLEGIATE STUDENT-ATHLETES’ WELLNESS AFTER SPORT

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Background: College student-athletes are more likely to experience difficulty transitioning from college than non-athletes, which may lead to decreased levels of overall wellness and an increased risk of mental illness.

Purpose: The purpose of this study was to explore the wellness of alumni athletes (AA) who recently transitioned from college.

Methods: Semi-structured interviews with AA (n=15) were administered at a university in the Midwest. Interview questions were based on the Indivisible Self Model’s five factors of wellness (coping, social, physical, creative, and essential). Data were analyzed using the process of immersion/crystallization.

Results: Related to the wellness factor of coping, a majority of AA stated that they experienced feelings of sadness or depression when their athletic career ended. For most, these feelings were associated with a loss in identity, as AA expressed challenges in redefining themselves after sport. When asked questions related to the social factor of wellness, most AA were satisfied with their current relationships, however many expressed a loss in social support and difficulties maintaining friendships post-collegiately. Other common issues were related to the physical factor of wellness as some AA lacked motivation to be physically active without structured practice and competition. Others experienced injuries trying to maintain their college sport’s training regimen post-collegiately. Nutritionally, while a few felt their diet had improved since college, most felt their diet had decreased in quality. Lastly, related to the creative factor of wellness, several athletes expressed that either themselves or their teammates experienced difficulty transitioning into a career resulting from a lack of focus on academics and/or lack of internship/job shadowing opportunities during college.

Conclusion: AA experience unique barriers transitioning from college that may decrease overall wellness and increase risk of mental illness. Student-athletes may require additional support and education prior to transitioning from sport.

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DIABETES, DEPRESSION, AND NONADHERENCE: EXPLORING HOPELESSNESS AS A MEDITATING FACTOR

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Diabetes Mellitus (DM) is a chronic illness that affects 25.8 million adults in the United States. A well-documented phenomenon among patients with DM is the comorbid occurrence of depression which impacts adherence rates in patients. Furthermore, depression has been shown to increase the risk of developing DM later in life, possibly due to the increased likelihood of engaging in negative health behaviors. The exact way in which depression impacts nonadherence to DM treatment is still unknown. In particular, the mechanism behind many patients with diabetes who are also depressed may be feelings of hopelessness. The purpose of the present study was to examine patients diagnosed with DM and hopelessness scores. Given the prevalence of not only depression but major areas of diabetes treatment and must be addressed by behavioral health specialists working with this population. These results suggest future research should continue to investigate hopelessness as a potential mediator between depression and nonadherence. Furthermore, intervention studies for patients with DM should consider implementing a brief, evidence-based treatment for depression and see if nonadherence rates decrease along with depression and hopelessness scores. Given the prevalence of not only depression but hopelessness within this population, utilization of a multidisciplinary approach within this population is ideal to address the health behaviors that clearly play a vital role in adherence and medical outcomes.

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LATINO GRANDPARENTS’ INFLUENCE ON GRANDCHILDREN’S LEISURE TIME PHYSICAL ACTIVITIES

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Physical activity prevents childhood obesity and other diseases. Family support is crucial to children’s leisure time physical activities (LTPA), and for many Latino children, the family support comes not only from parents but also from grandparents due to close-knit family structure. Latino grandparents have the potential to help parents who face barriers to support children’s LTPA, but their roles have been largely overlooked by researchers.

Using a qualitative approach, this study examined non-custodial Latino grandparents’ influence on grandchildren’s (age 2 to 12) LTPA. Data were collected from 3 focus groups and 11 interviews with 30 Latino grandparents in Los Angeles County. Participants were recruited from local churches, senior centers, and parks. The semi-structured focus groups/interviews, lasting approximately 30 to 60 minutes, were conducted by Latino researchers in Spanish.

Focus groups and interviews were audio taped and then transcribed. Data were open-coded into the various themes and analyzed using NVivo 7. Main findings are: 1) Latino grandparents had a very positive attitude toward children’s LTPA and identified various benefits of physical activity to children’s health; 2) Latino grandparents observed and were concerned that grandchildren spent excessive amount time on video games, cellphones, tablets, and TV; 3) Latino grandparents directly and indirectly influenced the grandchildren’s LTPA. The approaches used most frequently were role modeling and making suggestions to parents; 4) Some Latino grandparents faced challenges when supporting grandchildren’s LTPA, including lack of collaboration with parents, lack of skills on motivating grandchildren, and limited information about affordable physical activity programs/options for children.

The study results suggest that it may be promising to involve Latino grandparents in promotion of Latino children’s LTPA, and provide insights on how to develop intervention to increase Latino grandparents’ positive influence on grandchildren’s LTPA.

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B122a 6:00 PM-7:00 PM

LIFE SATISFACTION CHANGES FOLLOWING AEROBIC TRAINING PLUS NON-EXERCISE PHYSICAL ACTIVITY INTERVENTION: RESULTS FROM I-CAN.

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Background: Increased aerobic activity and decreased sedentary time have been shown to reduce cardiovascular disease risk and improve psychological outcomes such as self-efficacy and life satisfaction. However, little is known about differences in psychological outcomes between traditional aerobic training and combination interventions comprised of aerobic training and increased non-exercise physical activity.

Methods: Participants were randomized to receive 1) supervised aerobic training (AERO), 2) supervised aerobic training plus individual behavioral coaching intervention focused on increasing non-exercise physical activity to 3,000 daily steps from baseline (AERO-PA), or 3) non-exercise control (CON) for a period of 6 months. Changes in life satisfaction, self-efficacy and exercise and physical activity behavioral regulation were compared between groups.

Results: Twenty-three individuals (AERO = 9, AERO-PA = 5, CONTROL = 9) (mean age = 52.4, 34% AA, 17% male) completed the RCT. There was a significant difference between groups in life satisfaction change (F(2, 20) = 4.1, p = .032. Tukey post hoc tests indicated increased life satisfaction in the AERO-PA arm relative to the AERO and CON arms at p<.05. No significant differences were found for changes in self-efficacy or behavioral regulation; however, a statistically non-significant trend towards group differences in exercise identified motivation was observed (F(2, 20) = 2.7, p = .087 such that identified motivation was reduced in the CON arm (M = -.111) and increased in the AERO (M=.58) and AERO-PA (M=.6).

Conclusions: Exercise training increases motivation for exercise. However, combining exercise and non-exercise physical activity through behavioral coaching may have additional psychological benefits beyond any potential physical benefits, specifically, increased life satisfaction.

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B122b 6:00 PM-7:00 PM

LIFESTYLE INTERVENTION EFFECTS ON FREQUENCY/DURATION OF DAILY MODERATE-VIGOROUS PHYSICAL ACTIVITY AND LEISURE SCREEN TIME

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Objective: How a healthy lifestyle intervention changes the frequency and duration of daily moderate-vigorous physical activity and sedentary behavior has not been well-characterized. Secondary analyses of data from the Make Better Choices randomized controlled trial were conducted to evaluate how interventions to increase physical activity or reduce leisure screen time affected frequency and duration of these behaviors during treatment initiation and follow-up. Methods: Participants were 202 adults who exhibited insufficient physical activity, excessive screen time and poor diet during a 14-day baseline screening period. The design was a randomized controlled trial with a three-week intervention period followed by eight 3-7 day bursts of data collection over the 6-month follow-up period after intervention termination. Participants self-reported on their physical activity and screen time at the end of each day.

Results: A two-part multilevel model indicated that, relative to baseline levels, the physical activity intervention increased the odds of daily moderate-vigorous intensity physical activity (frequency) but not the duration of activity during the intervention period and these effects persisted (albeit somewhat more weakly) during the follow-up period. The screen time intervention reduced both the frequency and duration of daily screen time from the beginning of the intervention through the follow-up period. Conclusions: A three-week intervention increased daily physical activity frequency but not duration, and reduced both the frequency and duration of daily leisure screen time. These effects were maintained over 20 weeks following the end of the intervention.

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B123a 6:00 PM-7:00 PM

LONG-TERM SURVEILLANCE OF PHYSICAL ACTIVITY HABITS OF LATINAS ENROLLED IN A 12 MONTH PHYSICAL ACTIVITY INTERVENTION

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Background. Long-term physical activity surveillance has rarely been conducted and has never been conducted amongst Latinas. This information could be useful for better understanding daily physical activity habits and informing more effective interventions. The purpose of this study was to explore the variability of daily physical activity habits of inactive adult Latinas participating in a 12-month physical activity intervention.

Methods: We collected objective physical activity data (pedometer) from 139 Spanish speaking Latinas (age = 41.6 ± 10.1 years; BMI = 29.6 ± 4.3 kg/m²) enrolled in a 12-month physical activity intervention. Both total and aerobic steps (>100 steps/minute) were computed by year, season, month, type of day, day of week, time of day, and by hour.

Results: Participants walked an average of 6,509 steps/day of which 1,303 (20%) were counted as aerobic steps. Significant and similar differences were observed for both total steps and aerobic steps for day of the week (weekdays > weekends) and season (summer > spring > fall > winter). Opposing trends were observed over the course of the day for total steps (early afternoon > late morning > late afternoon > early morning > evening) and aerobic steps (early morning > evening > late morning > late afternoon > early afternoon).

Conclusions. Both seasonality and day of the week predicted physical activity habits of Latinas. This is the first long-term study to track daily physical activity habits of Latinas at an hourly resolution long-term. These data have potential to inform the design of future physical activity interventions targeting Latinas.

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B124a 6:00 PM-7:00 PM

MATCHED OR NON-MATCHED INTERVENTIONS BASED ON THE TRANSTHEORETICAL MODEL TO PROMOTE PHYSICAL ACTIVITY: A META-ANALYSIS

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Objective: Examine whether the efficacy of TTM based interventions on PA varied according to the following “matching” criteria: a) interventions targeted the actual stages of change (SOC) or did not; b) participants were selected according to their SOC or were not. Randomized controlled trials (RCTs) assessing TTM-based interventions promoting PA in adults were systematically searched.

Methods: A total of 31 RCTs were included. Moderation analyses did not reveal any differential efficacy in interventions targeting the actual SOC compared to those that did not (Qb = 0.07, p > .05), nor in interventions selecting participants according to their SOC compared to those that did not (Qb = 1.12, p > .05). TTM-based interventions enhanced PA behavior whether they target the actual SOC (d = 0.35; 95%CI [0.21-0.49]) or not (d = 0.24; 95%CI [0.09-0.38]) and whether they selected their participants according to their SOC (d = 0.33; 95%CI [0.14-0.53]) or not (d = 0.30; 95%CI [0.17-0.43]).

Conclusion: TTM-based interventions significantly improved PA behavior whether interventions or participants were matched with stages of change or not

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B126a 6:00 PM-7:00 PM

MODERATORS OF THE RELATION BETWEEN PERCEIVED NEIGHBORHOOD SAFETY AND PHYSICAL ACTIVITY

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Objective: The relation between neighborhood safety and PA is unclear. The current study explored moderators of the relation between PA and perceived neighborhood safety.

Methods: ConTxt was an RCT that assessed a theory-based text-message intervention for weight loss and increased PA. Participants were women and men (N=298) ages 21-60 with BMIs of 25-29.9. Baseline data were used for current analyses. The PA outcome was accelerometer-derived min of MVPA/day. Perceived neighborhood environment variables were 1) traffic safety, 2) walking infrastructure safety, 3) safety from crime and 4) walkability index of 4 scales (e.g. residential density, street connectivity). Moderators represented an ecological model: individual (e.g. age, gender, BMI), psychosocial (e.g. self-efficacy, social support) and home environment (e.g. home PA equipment). A final multilevel generalized linear regression model was used to identify main effects and cross-level interaction effects (i.e. moderators).

Results: In the final model, individual demographics moderated the walking safety environment association with total MVPA in 3 interactions (P < .05). Males had more MVPA in neighborhoods with higher walking safety (i.e. 25 min difference high vs. low), with little difference among females. For White non-Hispanics, walking safety was positively related to MVPA, with little difference for Hispanic and other minority participants. Walking safety was positively related to MVPA for overweight participants (20 min difference) and obese Class 1 participants (10 min difference), but not for obese Class 2 participants. The walkability index was moderated by age with a 10 min positive difference in MVPA/day among older participants (51-64 years), an inverse association with MVPA among young adults (23-35 years), and no relation among middle-aged adults (36-50 years).

Conclusion: Among overweight adults, demographics moderated the walking safety environment association with total MVPA in 3 interactions (P < .05). Males had more MVPA in neighborhoods with higher walking safety (i.e. 25 min difference high vs. low), with little difference among females. For White non-Hispanics, walking safety was positively related to MVPA, with little difference for Hispanic and other minority participants. Walking safety was positively related to MVPA for overweight participants (20 min difference) and obese Class 1 participants (10 min difference), but not for obese Class 2 participants. The walkability index was moderated by age with a 10 min positive difference in MVPA/day among older participants (51-64 years), an inverse association with MVPA among young adults (23-35 years), and no relation among middle-aged adults (36-50 years).

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B126b 6:00 PM-7:00 PM

MOTIVATIONS AND TRAINING STRATEGIES OF SENIOR/MASTER ATHLETES (60+ YO): A QUALITATIVE STUDY

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By 2020, one in four Americans will be older than 60 years of age (Napilitano, 2005). While the numbers of adults over 60 participating in physically demanding sports is increasing (Dionigi, 2006), only 40.7% of 60-69 year olds and 23.4% of adults over 80 continue to be active (Carlson, et al., 2015). The challenges that seniors face include: pain, physical barriers, health care providers who fail to recommend exercise and lack of knowledge (Schutzer & Graves, 2004). The long term goals of our research include identifying ways to help active seniors continue to exercise, help inactive seniors increase their exercise, and identify useful training strategies for athletic trainers. This pilot project focuses on identifying the range of psychological, behavioral and social facilitators and barriers that competitive senior athletes encounter as they exercise. We recruited 8 (4 male and 4 female) master athletes who were 60 and older through flyers and snowball sampling. Sports included competitive swimming, cross-fit, and bicycling. Qualitative interviews covered topics related to training procedures, typical daily activities, age-related limitations, motivations, and perceived benefits. Each interview recording was transcribed and coded for themes. Themes related to motivations for exercise included: slowing of aging process (resisting inevitable limitations), prevention of unhealthy conditions (heart disease, diabetes, etc.), a history of always being active, fear of losing fitness, and social support. Motivations for competition included a competitive nature, mental strength, and the endorphin rush related to competing. Age related limitations included giving up certain types of activities due to past injuries, cutting back on expectations, modifying exercises to fit physical limitations, and taking more time to recover. In regards to trainers, participants suggested that trainers learned to change their training styles for older individuals primary after they experienced age related injuries. Topics for further research include managing exercise related pain and changing training strategies over time.

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OBJECTIVELY MEASURED ACTIVITY IN OLDER US ADULTS BY MOBILITY LIMITATION STATUS: NHANES 2003-2006

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Background: Older adults' physical activity (PA) and sedentary behavior (SB) may be related to limitations in their mobility. Mobility disability (MD) and activities of daily living disabilities (ADLD) are more prevalent in older adults, but little is known about the impact of these mobility limitations on overall daily PA and SB.

Objectives: The aim of this study was to describe objectively measured PA and SB in older adults (60+ years) by mobility limitations (no mobility disability (NMD), MD, and ADLD).

Methods: Older adults (n=2287), from the 2003-2006 National Health and Nutritional Examination Survey, were classified by mobility limitation status according to their responses to the physical functioning interview questions. Using ActiGraph accelerometer data, we compared several activity variables by the three mobility limitation categories: 1) daily profiles of PA (hour-by-hour and cumulative plots of activity counts/minute), and 2) proportion of wear time spent in moderate-to-vigorous PA (MVPA), and SB. We examined a hypothesis that hour-by-hour activity, cumulative counts, and MVPA would decrease, while SB would increase in a graded manner according to the severity of mobility limitations.

Results: Half the participants (50%) had NMD; 28% had MD; and 22% had ADLD. Individuals with NMD had 214,164 total counts, spent 1.7% of time in MVPA, and 61% of time in SB. Compared to those with NMD, participants with MD and ADLD had lower PA levels (~59,554 fewer counts (72% of NMD) if MD, ~84,118 fewer counts (61% of NMD) if ADLD), less MVPA (0.08% if MD, 0.06% if ADLD), and more SB (67% if MD, 70% if ADLD) (P=0.001). ADLD also had significantly lower PA levels, less MVPA, and more SB than MD (P=0.001). However, all participants shared a similar PA accrual pattern throughout the day, with a peak activity occurring at 11:00 am and a slow decline as the day progressed.

Conclusions: Accelerometer-assessed PA and SB is related to mobility limitations; those with greater mobility limitations were less active and more sedentary than those with less severe mobility limitations.

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**B135a 6:00 PM-7:00 PM**  
**PHYSICAL ACTIVITY IN YOUTH WITH INFLAMMATORY BOWEL DISEASE: AN EXAMINATION OF PARTICIPATION IN SPORTS**  
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**Background:** Inflammatory bowel diseases (IBD) are chronic digestive conditions commonly diagnosed before age 18. Symptoms (e.g., abdominal pain and nausea) can interfere with physical activity (PA). Adequate PA is important for youth with IBD, since those with IBD are at risk for later development of osteoporosis and because comorbid obesity increases the risk of IBD complications. Sports participation is an important source of PA for all youth; however, whether IBD interferes with sports participation is understudied. This study described youth perceptions of limited sports participation; examined demographic and disease correlates of impaired sports participation; and explored physical and psychosocial health outcomes associated with limited sports participation.

**Methods:** 76 youth [M(SD)=14.5(1.84) years; 45% female] completed surveys of perceived impairment in sports participation, weight satisfaction, energy level, and fatigue (IMPACT-35) and quality of life (Peds-QL). Physicians rated disease activity at the time of enrollment.

**Results:** 9% of youth reported that their IBD often or very often impairs sports participation; nearly half reported at least occasional interference. Active disease (t(74)=-2.53, p=.014) and older age (r=.32, p=.006) were associated with greater impairment. Youth with greater impairment in sports participation reported more weight dissatisfaction (r=.44, p=.003), lower energy levels (r=-.65, p<.001), and greater fatigue (r=.65, p<.001). Greater impairment in sports participation was also associated with poorer emotional (r=-.47, p<.001) and decreased moderate-sized but non-significant effects for greater time to first partial lapse (HR=0.36, 95% CI[0.05-1.05]) and full lapse (HR=0.89, 95% CI[0.52-1.05]) independent of condition. Self-paced exercise and more positive affective response during the previous exercise session predicted time to lapse. Results suggest moderate-sized but non-significant effects for greater time to first partial lapse (HR=0.36, 95% CI[0.08-1.05]) and first full lapse (Hazard Ratio=0.29, 95% CI[0.05-1.05]) for participants in the self-paced condition. There were small to medium but non-significant effects suggesting that a more positive affective response during the previous exercise session resulted in greater time to partial lapse (HR=0.92, 95% CI[0.59-1.43]) and full lapse (HR=0.89, 95% CI[0.52-1.05]) independent of condition. Self-paced exercise and more positive affective response during exercise may prevent lapses among those who have initiated an exercise program.

**Conclusions:** IBD interfered with sports participation for nearly half of participants. Older youth and those with active disease were at greater risk. Addressing barriers to participating in sports may be a useful strategy to improve physical and psychosocial functioning in youth with IBD.

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**B137a 6:00 PM-7:00 PM**  
**PREDICTORS OF EXERCISE LAPSE AMONG OVERWEIGHT ADULTS: AN ECOLOGICAL MOMENTARY ASSESSMENT STUDY**  
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Exercise programs tend to have low adherence and high drop-out rates. It is important to understand predictors of exercise lapse in order to improve exercise promotion efforts and effectively tailor programs. This study examines predictors of exercise lapse among 59 previously low-active (<60 min/wk exercise) overweight (M=31.93, SD=3.99), but otherwise healthy adults (M=47.71, SD=11.06) enrolled in a pilot RCT. Participants were randomly assigned to one of two conditions for which the only difference was the exercise prescription: moderate intensity (64-76% max HR) or self-paced. All participants were encouraged to complete 150-300 min/wk of structured walking. Electronic diaries were used to collect self-report data for six months on exercise duration (entries at start and end of exercise) and affective valence at 5min intervals during exercise (Feeling Scale: how are you feeling right now? -5=very bad, 0=neutral, +5=very good). For this study, we defined exercise initiation as one week of at least 150min of walking. We defined partial lapse as walking between ≥90min and <150min and full lapse was defined as <90min of walking in one week after initiating exercise. Using a series of Cox Models, we assessed the effect of group (self-paced vs moderate intensity) on time to first partial and full lapse. Then, we examined whether affective valence during the previous exercise session predicted time to lapse. Results suggest moderate-sized but non-significant effects for greater time to first partial lapse (HR=0.36, 95% CI[0.08-1.05]) and first full lapse (Hazard Ratio=0.29, 95% CI[0.05-1.05]) for participants in the self-paced condition. There were small to medium but non-significant effects suggesting that a more positive affective response during the previous exercise session resulted in greater time to partial lapse (HR=0.92, 95% CI[0.59-1.43]) and full lapse (HR=0.89, 95% CI[0.52-1.05]) independent of condition. Self-paced exercise and more positive affective response during exercise may prevent lapses among those who have initiated an exercise program.

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AN EVALUABILITY ASSESSMENT OF THE WEST VIRGINIA PHYSICAL ACTIVITY PLAN

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Background: The United States National Physical Activity Plan (NPAP) was released in 2010 as a national strategic plan to enable population level increases in physical activity (PA). Emphasis was placed on making the NPAP implementation a state- and local-based grassroots effort. However, only two states and one locality have created standalone PA plans, including the 2012 West Virginia Physical Activity Plan (WVPAP).

Methods: An Evaluability Assessment (EA) of the WVPAP was conducted as part of the update of the plan in 2015, including document reviews, stakeholder interviews and workgroups, and implementation surveys. An EA is an activity to determine whether a program is ready for evaluation, assist in identifying program improvements, and ensure that an evaluation will result in useful information.

Results: Results of the EA of the WVPAP highlighted the needs to: (1) appoint an implementation entity; (2) create sector-specific logic models; and (3) have an independent evaluator prospectively evaluate the WVPAP.

Conclusions: The EA process is recommended for other PA planning efforts. It was valuable in developing implementation and evaluation recommendations that will advance the next iteration of the WVPAP by translating the broad strategic vision of a PA plan into sector-specific, evaluable implementation plans.

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B142a 6:00 PM-7:00 PM

CULTURAL COMPONENTS IN ADOLESCENT PREGNANCY PREVENTION PROGRAMS FOR MINORITY YOUTH: PROGRAM FACILITATOR PERCEPTIONS

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Background: Adolescent pregnancy rates are at an all-time low, but minorities remain disproportionately affected. Proposed federal legislation has responded to this issue by calling for an increase in programs that are culturally relevant and include cultural components. The application of cultural components in the field of adolescent pregnancy prevention is varied/inconsistent, which could affect program outcomes. This purpose of this study is to explore how culturally related curricula is perceived and used by program staff in ongoing evidence-based adolescent pregnancy prevention programs.

Methods: We conducted qualitative semi-structured phone interviews with program facilitators. The sample population for this study included staff directly involved in program delivery from a random sample of each 2010 U.S. Department of Health and Human Services and Office of Adolescent Health-funded adolescent pregnancy prevention program that incorporates culturally related components for minority youth in its curriculum.

Results: Nine interviews were conducted with adolescent pregnancy prevention program facilitators in 6 states. Programs included ¡Cuidate!, BART, SiHle, and the Aban Aya Youth Project. Of these programs, all were developed for use with either African American or Hispanic youth. Programs include a wide variety of cultural components not limited to translated documents, inclusion of African American history, facilitators of the same ethnicity as youth, and culturally tailored names in curriculum. Facilitators indicated that positive aspects of cultural components include strengthening self identity as well as self esteem. Concerns include the need for greater inclusivity for bicultural and LGBTQ youth in classrooms.

Discussion: Overall, facilitators reported strong support for their programs and pride in delivering the material. Of participants who suggested changes in cultural components, the need for evaluation and a more inclusive curriculum were concerns. Results of this study highlight the variety of cultural components included in adolescent pregnancy prevention programs designed for minority youth and acknowledge areas of suggested changes by facilitators involved in the day to day implementation of these programs.

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RELATIONSHIP ON PRENATAL STRESS

In light of well-established findings showing adverse impacts of stress during pregnancy, it is important to understand determinants of variation in prenatal maternal stress and health. Even mild exposure to psychosocial, cultural, or environmental stressors during pregnancy can negatively influence child development. In addition to general stress, prenatal stress also includes a particular focus on pregnancy-specific stressors, such as worry about pregnancy complications. Stress and coping theories describe correlates between stress and beliefs of control thereof. Within the context of pregnancy, research suggests that the effects of stress can be altered by maternal perceived control. Social support can also be predictive of prenatal stress and health. Given the multifaceted contextual factors affecting the pregnancy experience, we sought to understand how health attitudes interact with stress and well-being during pregnancy in order to best inform prenatal preventive health efforts. Our sample included 79 pregnant US women recruited online (mean age = 30; mean gestational age = 18.59 weeks). We hypothesized that pregnant women’s locus of control about their health and pregnancy would influence their prenatal stress experience, as mediated by their relationship with their prenatal health provider and perceived social support. Regression analysis results indicated a predictive relationship between health locus of control and perceived stress during pregnancy, \( F(1, 77) = 12.182, \ p < .01, \ R^2 = .14 \). Mediation analyses using the PROCESS macro indicated significant indirect effects for the mediating influence of the patient-provider relationship on the relationship between both general and pregnancy-specific health locus of control and prenatal stress, \( ab = -.1033, \text{CIs} [-.2292, -.0279] \) and \( ab = -.1040, \text{CIs} [-.2379, -.0051] \), respectively. General social support was not found to be a significantly mediating factor. These findings suggest the importance of considering mothers’ health attitudes and provider interactions in preventive health efforts during pregnancy.

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B145a 6:00 PM-7:00 PM

PIONEER BABY – PERCEPTIONS OF PERICONCEPTIONAL WEIGHT AMONG A LOW-INCOME RURAL PREGNANT POPULATION IN KANSAS

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Background: In the United States, more than half of women enter pregnancy above normal weight and about 70% exceed the Institute of Medicine’s recommendations for gestational weight gain. Pioneer Baby is a health collaborative to optimize pregnancy and birth outcomes in an extremely frontier, rural region in Kansas. In this area, the rate of gestational diabetes mellitus ranges from 3.3% to 12% and the C-section rate ranges from 27.1% to 44%.

Objective: The purpose of this study was to examine rural pregnant women’s perception of their body mass index (BMI) group identification (underweight, normal, overweight, or obese) three months prior to pregnancy.

Study Design: Two critical access hospitals and one federally qualified health clinic participated in a health assessment. A survey was administered that measured anthropometrics, prenatal education, diet, exercise, medical history, and demographic characteristics. Women were asked to report their weight and height three months prior to pregnancy, their perception of BMI group identification three months prior to pregnancy, and current height and weight. BMI was calculated based on reported weight and height.

Results: Sample size included 177 rural women. Most respondents were Hispanic (50.3%), 18-25 years old (48.6%), some high school (20.5%) or high school graduate (30.7%), WIC enrolled (51.7%), and earned < $50,000/year (79.5%). Prior to pregnancy, 59.7% of women perceived their BMI as normal versus 41.5% calculated BMI for this category. Additionally, 31.3% and 3.4% of women perceived their BMI as overweight or obese respectively whereas 28.1% and 26.2% were overweight or obese based on calculated BMI.

Conclusion: This group of rural pregnant women largely underestimated their BMI category indicating a gap between perceived versus calculated BMI, which is consistent with research findings in other populations. High pre-pregnancy BMI increases the risk for pregnancy complications. Interventions to address periconceptional weight among reproductive-aged rural women are needed and are the focus of follow-up studies.

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PREDICTORS OF MATERNAL EXPERIENCE OF TRAUMATIC CHILDBIRTH AND POSTPARTUM PSYCHOLOGICAL DISTRESS

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Introduction: Experiencing a traumatic childbirth (TC), in which there is a perceived threat of serious harm or death to the self or infant, can lead to psychological and behavioral problems that can interfere with mother-infant bonding and attachment. Contextual, medical, and maternal factors during pregnancy and childbirth may increase the likelihood of experiencing TC and postpartum psychological distress. Method: Participants: English-speaking women who had given birth to a living child in the past 1-3 months (N=107) were recruited from social media and message boards. Characteristics: Mage=30 years; majority White, married, college-educated, primaparous; 51% had pregnancy complications (e.g., hypertension), 61% had birth complications (e.g., meconium in fluid), 33% had a child admitted to the neonatal intensive care unit (NICU). Survey: online survey assessing pregnancy and childbirth experiences, TC, and symptoms of posttraumatic stress disorder (PTSD; PCL-S), anxiety (HADS-A) and depression (EPDS). Results: 43% of mothers reported TC. More mothers with pregnancy complications (56% vs. 29%; p < .01) or whose child required NICU admittance (74% vs. 28%; p < .001) reported TC. Mothers who reported TC reported less perceived control over the self and greater feelings of helplessness and terror during birth, and greater current symptoms of anxiety and PTSD (ps < .05). In mothers who reported TC, birth complications predicted PTSD symptoms (p < .05), pregnancy complications predicted anxiety symptoms (p < .01), and prenatal fear of birth and pain of birth predicted depressive and anxiety symptoms (ps < .05), controlling for other predictors. Conclusions: Preliminary analyses suggest maternal experiences during pregnancy and childbirth are related to postpartum mental health. These findings emphasize the need to assess maternal expectations of childbirth and can inform the development of interventions aimed at preventing TC and reducing symptoms of postpartum psychological distress.

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Assessing Clinicians’ Attitudes Towards a Mobile Health Strategy to Improve Adherence in Children Prescribed Asthma Therapy

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Medication adherence is a major barrier in chronic disease management. Mobile health apps address poor adherence and improve communication between patients and clinicians. Mobile technology that manages childhood asthma can provide real-time biometric data to enhance patient-centered care. Whether clinicians want real-time adherence data, how they may use it, and if the data meet their needs has not been fully explored. The goal of this study was to determine whether pediatric primary care and pulmonary clinicians find a mobile intervention useful in caring for their patients with asthma. We conducted a series of focus groups in 3 urban, primary care and 1 pulmonary practice from July to September 2015 in Hartford, CT. The 41 participants (median age 52 years) practiced medicine an average of 19 years (±14), were primarily White (59%) or Hispanic (22%), female (78%) and board-certified physicians (39% MDs). Participants were probed with open-ended questions on the type, frequency, and format of inter-visit patient information. Focus groups were recorded, transcribed, and analyzed using accepted systematic procedures. Three investigators independently analyzed transcripts and field notes to identify major themes. We observed that clinicians desire data on adherence to prescribed inhaler therapy and want this information during a scheduled clinic visit, but also want alerts when patients demonstrate excessive use of rescue therapy. Data should be presented graphically and pushed into the electronic health record. Clinicians thought a “smart” spacer that monitors use and educates on a patient’s inhaler technique would be useful. Pulmonologists liked the mobile spirometer’s ability to provide inter-visit lung function data; primary care clinicians did not share this view as none use spirometry in their practice. School nurses were identified as important partners in tracking use of rescue therapy. Concerns were expressed regarding the accuracy and trust of data due to families who share inhalers, patient’s access to smartphones, and protection of health information. Overall, clinicians view an asthma mobile health technology as enhancing the patient-centered medical home.

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Into the Weeds: Factors Influencing IF and When Providers Initiate Sexual Health Conversations with Breast Cancer Survivors

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Background: Breast cancer survivors experience a range of sexual health (SH) issues that affect quality of life. Research indicates that survivors want to discuss sexuality with providers, but are reluctant to bring up the topic. Providers also report they seldom initiate SH conversations. However, provider engagement in this context is critical for many patients as those who do not discuss problems are more disposed to sexual dysfunction. Addressing SH concerns for a growing number of survivors is a challenging clinical reality. As the survivorship landscape continues to evolve, a variety of providers will need to understand and meet survivors’ SH needs. We aim to uncover factors influencing if and when providers initiate SH conversations with survivors.

Methods: Semi-structured interviews were conducted with providers from oncology (5), family medicine (13), gynecology (13), internal medicine (6), and behavioral health (3). The constant comparative method was used to analyze themes that illustrate factors influencing initiation of SH conversations. Attention was given to examining the context in which decisions were made to understand if and when providers initiate SH conversations with survivors.

Results: The following themes illustrate how providers characterize factors encouraging or dissuading them from initiating SH conversations: providers’ beliefs regarding their role in psychosocial care; concerns for patient comfort; patient-provider demographic differences; limited personal relationship with patient; providers’ knowledge of clinical issues and treatment options; beliefs regarding the effectiveness or safety of treatment options; and time constraints.

Conclusions: This study builds our understanding of challenges associated with survivorship care in oncology and primary care settings. It expands our knowledge of communication in that it reveals how differing levels of provider knowledge and comfort with SH shape clinical interactions. The results can be translated to enhance medical education and to inform provider communication training.

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BELIEFS WITH ADOLESCENT FEMALE HIGH SCHOOL STUDENTS IN UGANDA

FACILITATED PEER LEARNING TO INITIATE DISCUSSION ON REPRODUCTIVE

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Purpose and Methodology: AIDS-orphaned adolescent girls in Sub-Saharan Africa are particularly vulnerable to acquiring HIV infection and to adverse reproductive health (RH) outcomes. Discussing these topics is imperative for prevention. A facilitated peer learning group format was used to create a neutral peer-to-peer exchange through discussion; assess beliefs and misconceptions of RH, and deliver accurate information in a group of female high-school students in a rural community in Uganda. Peer facilitator was a female adolescent. A support team of two American female health professionals and two Ugandan female high-school teachers provided culturally-relevant evidence-based information on RH, HIV-AIDS, sexually transmitted infections (STI), and preventing unintended pregnancies. Detailed observational field notes were recorded by 3 observers on participants’ questions and discussion topics. Salient themes emerged from content analysis and were mutually decided by 100% agreement among the 3 observers.

Results: All 80 participants were Black African-Ugandan females (age range= 12-18yrs). The majority had lost at least one parent to AIDS. Participants had four major questions: 1) At what age can females start having babies? 2) Can girls get pregnant during their periods? 3) When is the “safe time” to have sex? 4) What’s the biggest RH problem for teen girls worldwide?

Four major themes emerged from discussion: 1) Rape is the universal fear among all female teens. 2) Worrying about unintended pregnancies, acquiring STIs, HIV/AIDS from unprotected sex. 3) Importance of mutual respect among couples, and empowerment over their own bodies to determine if and when to have sex, and the right to say no. 4) Importance of continuing their education to achieve career goals.

Conclusion: Many misconceptions were identified. This peer facilitated learning environment addressed these issues in a supportive manner. This format can facilitate intervention delivery and can be easily implemented anywhere.

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PRIMARY, SECONDARY & TERTIARY SEXUAL DYSFUNCTIONS AS PREDICTORS OF HEALTH RELATED QUALITY OF LIFE (HRQOL) IN MULTIPLE SCLEROSIS

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Multiple Sclerosis (MS) is a chronic neurological, autoimmune disease that affects approximately 400,000 individuals in the United States and 2.3 million people worldwide (National MS Society). Sexual dysfunction is a symptom that is highly prevalent in the MS population, with about 70% of MS patients reporting the symptom (Zorzon et al., 2001). Even with this high prevalence, sexual dysfunctions are often underreported and underdiagnosed in MS. Sexual dysfunction in MS can be divided into three categories (Foley & Warner, 2011). Primary sexual dysfunctions are considered a direct result of neurologic changes that in turn affect sexual responses. Secondary sexual dysfunctions result from symptoms that do not directly involve the nervous pathways to the genital system. Tertiary sexual dysfunctions are the result of psychosocial and cultural issues related to disability that affect sexual feelings and experiences. Schairer et al. (2014) found that sexual dysfunction had a relatively large impact on mental aspects of HRQoL compared to disability level and demographic factors and a smaller, yet still significant impact on physical aspects of HRQoL. In the present study, hierarchical linear regression was conducted to investigate the degree to which primary, secondary and tertiary sexual dysfunctions predicted the mental and physical components of HRQoL based on these results. Six separate regression models were performed with the MCS-12 entered as the dependent variable in three of the models and PCS-12 entered in the other three models. Secondary and tertiary sexual dysfunctions were found to significantly predict the majority of the detrimental impact of sexual dysfunction on the mental aspects of HRQoL, whereas primary sexual dysfunctions predicted the detrimental impact to a lesser degree. Older age was found to significantly predict better physical HRQoL. These findings highlight the relationship between sexual dysfunction and mental health aspects of HRQoL as well as the comparatively large contribution of the psychosocial aspects of sexual dysfunction on this relationship.

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**B156a 6:00 PM-7:00 PM**

**SEXING, SEXUAL RISK, BODY IMAGE, AND WEIGHT CONTROL STRATEGIES IN YOUNG WOMEN**

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Prior work has documented associations between “sexting” (sending sexually suggestive photos via text message) and sexual risk behavior. The purpose of the present study was to replicate prior work linking sexting to sexual behavior and to determine if sexting was also associated with body image concerns and problematic weight control strategies. Participants were 743 young (ages 18-25) women who participated in an anonymous online survey assessing sexting, sexual behaviors, body image, media influence on body image, and eating disorder behaviors. Overall, 51.7% of participants reported sexting. As with prior work, sexting was associated with sexual risk behaviors in multivariable analyses controlling for age, relationships status, and race/ethnicity, including having multiple sexual partners in the past 3 months (OR = 6.21, p < .001) and having unprotected sex in the past 3 months (OR = 4.07, p < .001). Women who had engaged in sexting did not differ in BMI (M = 23.9, SD = 5.1) from those who had not (M = 23.5, SD = 4.8). However, women who had engaged in sexting had higher body image concerns (M = 90.8, SD = 37.1) than those who had not (M = 89.0, SD = 36.1), t(702) = 3.58, p < .001. Sexters also endorsed internalization of media-based thin body ideals (M = 29.0, SD = 9.4) more than non-sexters (M = 26.8, SD = 9.0), t(721) = 2.68, p < .01. In addition, women who had sexted were more likely to report behaviors suggestive of an eating disorder such as vomiting to control weight (5.1%) relative to women who had not sexted (2.3%). Results suggest that engagement in sexting is linked not only to sexual behavior but also to greater body image concerns and health-jeopardizing behaviors to control weight.

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**B156b 6:00 PM-7:00 PM**

**THE ASSOCIATION BETWEEN RELIGIOUS ORIENTATION, SEXUAL ACTIVITY, AND CONDOM USE AMONG YOUNG ADULTS**

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Young adults engage in sexual behaviors that may compromise their health (e.g., unprotected sex) and contribute to sexually transmitted infection health disparities. High religiosity (e.g., religious service attendance) has been associated with lower contraception use. However, relations between religious orientation (i.e., intrinsic, extrinsic) and risky sexual behaviors have been understudied. This study conducted an online survey to investigate the relation between religious orientation and previous vaginal sex and unprotected vaginal sex among college students (N = 740; 18-25 years; M = 19.9 years). Covariate (e.g., age and religious affiliation) adjusted logistic and negative binomial regression analyses examined the association between religious orientation and a) lifetime history of vaginal sex (n = 587; 79%); b) condom use at the most recent sexual episode (n = 443; 60%); and c) proportion of condom protected sexual episodes during the past month (n = 345; 47%). Individuals with a higher intrinsic religious orientation were less likely to report previous vaginal sex (AOR = 0.93, 95% CI 0.91–0.96), with no differences in condom use at last sex (AOR = 1.01, 95% CI 0.97–1.05), or during the past month (β = 0.01, p = .56). Extrinsic religious orientation was not associated with the likelihood of previous vaginal sex (AOR = 0.96, 95% CI 0.93–1.01), condom use at the last sex (AOR = 0.97, 95% CI 0.93–1.02) or in the past month (β = 0.004, p = .72). Although religious orientation was not significantly associated with condom use at the last encounter or in the past month, results suggest that young adults with a greater intrinsic religious orientation were less likely to have had vaginal sex. Further research is needed to identify other variables that may play a role in the relation between religious orientation and risky sexual behaviors (e.g., gender roles).

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B156c 6:00 PM-7:00 PM
THE CONDOM CARNIVAL: EFFICACY OF A NOVEL, PEER-LED, GROUP SEXUAL RISK REDUCTION INTERVENTION
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Introduction: College students engage in sexual behaviors that place them at risk for unplanned pregnancy and sexually transmitted infections (STI). Interventions are needed to decrease sexual risk in this population. This study examined the efficacy of the Condom Carnival (CC: a novel, brief, interactive, culturally-tailored, peer-led sexual risk reduction group intervention) compared to VOICES/VOCES (V/V: an effective CDC behavioral intervention for STI/HIV prevention) in increasing safe sex behaviors among college students.

Methods: 59 undergraduates from a Southern university (78% Female; 53% Black, 37% White; Mean=21.8, SD=6.2) were randomized to groups (CC n=28; V/V n=31). Pretest, posttest, and 1-month follow-up data were collected. CC participants engaged in 8 interactive activities designed to teach correct condom use, condom negotiation, lubricant safety, importance of STI testing, and risks associated with oral sex, multiple partners, and substance use during sex. A mixed between-within subjects ANOVA assessed the impact of CC on participants’ scores on the Safe Sex Behavior Questionnaire across time compared to V/V.

Results: No significant interaction was found between intervention type and time, λ=.95, F(2,56)=1.37, p=.26. There was a substantial main effect for time, λ=.36, F(2,56)=50.94, p<.001, partial η²=.65. Both CC (Pre: X=68.5, SD=12.7; Post: X=85.5, SD=7.9; Follow-up: X=73.1, SD=13.7) and V/V (Pre: X=70.9, SD=12.7; Post: X=83.1, SD=10.9; Follow-up: X=74.3, SD=12.9) participants showed gains in safe sex behavior scores from pretest to posttest followed by a partial reduction of effect at follow-up. The main effect comparing both interventions was not significant, F(1,57)=.02, p=.88.

Discussion: CC improved participants’ safe sex behaviors at levels similar to the established V/V intervention; effects were attenuated but maintained one month later. CC is an innovative and developmentally appropriate method to engage college students in large-scale sexual risk reduction and condom promotion efforts aimed at combating high pregnancy and STI rates.

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B168a 6:00 PM-7:00 PM
THE RELEVANCE OF YOGIC PHILOSOPHY IN YOGA PRACTICE: A POSSIBLE PATH TO FLOURISHING
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Yoga is an ancient spiritual practice. It is a rich philosophical system that aims to cultivate the mind and foster an ethical lifestyle. However, few studies have investigated the impact of yoga philosophy on measures of well-being. In this study, one group of college students completed a course in which the Patanjali’s Yoga Sutras were explained in a concise, simple, and progressive manner, whereas another group completed a course in which the philosophy of hatha yoga was applied throughout the semester. Both groups practiced the common forms of asana and relaxation found in many contemporary studios, being the philosophical principles the only element different between groups. At the end of the study, students showed significant improvements in perceived stress and mindfulness. Moreover, students’ narratives described important positives changes in emotional, psychological, and social well-being supporting the impact of yoga in daily life. The findings of this study support the use of philosophical principles for the translation of yogic practice to everyday life, which may enhance overall well-being and improve quality of life in young adults. In addition, yoga may be an important practice that can guide the practitioner towards flourishing by improving different dimension of well-being.

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SPIRITUALITY AND WELL-BEING AMONG THE MEDICALLY ILL: EXAMINING MEDIATORS AND MODERATORS

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Spirituality is thought to confer well-being among the medically ill. We examined if perceived illness-related growth or depreciation mediates this relationship. As spirituality provides a meaning framework within which more adaptive appraisals can be developed (Park, 2010), it may help people perceive more illness-related growth and less depreciation. However, this link may be moderated by coping: People engaged in more adaptive coping may be able to perceive more growth and less depreciation independent of their spirituality; in contrast, for those using less adaptive coping, spirituality may be more beneficial. We tested this moderated mediation hypothesis in a longitudinal study of congestive heart failure (CHF) patients.

Methods Sample consisted of 142 CHF patients who completed surveys twice, six months apart. At Time 1, spirituality, illness-related growth and depreciation, positive and negative coping, life satisfaction, positive mind states, and meaning were assessed. The latter three variables represented well-being, which were assessed again at Time 2 to gauge improvements. Analyses were conducted in PROCESS and the index of moderated mediation (Hayes, 2015) was used to establish moderated mediation.

Results & Discussion Examined simultaneously, illness-related depreciation was a significant mediator, but illness-related growth was not. Further, this significant mediated path was moderated by negative coping (e.g., for life satisfaction, index = .0720; SE = .0381; 95% CI = [.0120, .1642]) but not positive coping. Exploring this significant moderated mediation showed that for all well-being variables, as negative coping decreased, the mediated path became smaller, to the extent that it was nonsignificant at low negative coping (e.g., indirect effect on life satisfaction at low and high negative coping were \( b = .03 \) (SE = .04) and \( b = .16 \), SE = .06) respectively. Results suggest that spirituality may help people perceive less illness-related depreciation, which could result in subsequent improved well-being, particularly for those high in negative coping.

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**B170b 6:00 PM-7:00 PM**

**RELIGIOSITY AND COPING AMONG AFRICAN AMERICAN BREAST CANCER SURVIVORS**

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**Introduction:** Historically, African American women had a lower incidence rate for breast cancer compared to White women. However, the American Cancer Society recently reported that for the first time in history, the incidence rate of breast cancer among African American women is comparable to their White counterparts. While the statistics are grim, as African American women tend to have the highest death rate from the disease, this population has also been identified as being the most religious compared to other ethnic groups. Religiosity has been identified as a factor that influences African American women’s health perspectives, screening, care decision making, care management, and coping with illness. The purpose of this qualitative study is to explore the religious influence among African American breast cancer survivors. **Methods:** Using a phenomenological study design, we conducted seven focus groups (N = 49; average age = 62 years) with breast cancer survivors. Participant’s demographics were collected and analyzed using descriptive statistics. **Findings:** The qualitative method of narrative analysis identified four common themes: God as strength, reflecting on meaning, religiosity and social support, and enhanced spirituality. **Conclusion:** Our findings support the faith-based approaches to health promotion and call for more studies to explore the role of religiosity and health. The ‘church family’ was more than a source of support in terms of prayers. The female breast cancer survivors shared that through the ‘church family’, they were able to get access to resources (e.g., social support, financial support, and resources).

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**B178a 6:00 PM-7:00 PM**

**SOCIAL MEDIA PHOTOS OF SUBSTANCE USE AND THEIR RELATIONSHIP TO ATTITUDES AND BEHAVIORS AMONG MINORITY EMERGING ADULT MEN**

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**Background:** Social networks have a substantial impact on substance use behavior of emerging adults, which is of increasing concern with the rise of social networking sites (SNS). In spite of the high prevalence of SNS users, research examining associations between SNS interactions and substance use outcomes has been limited.

**Methods:** 67 African-American and Hispanic adults aged 18-25 were recruited from 10 social networks. Instagram and Twitter accounts were monitored for 3 months and images were coded for themes of alcohol and marijuana use. Further, participants answered questions about substance use attitudes and behaviors.

**Results:** 2531 images were coded; 40% of participants posted images of alcohol use and 28% posted marijuana use. 87% had at least one person in their network post alcohol use images and 70% saw images of marijuana use. Images that depicted participants’ friends from their network were more likely to depict alcohol (p=.001), and posting photos of alcohol or marijuana was associated with having significantly more followers (p < .05). Regression analyses showed that participants who posted images of marijuana use had more positive attitudes toward marijuana (p < .05), smoked marijuana more often (p=.10), and engaged in problematic use (p < .01). Additionally, participants who posted alcohol use engaged in more frequent alcohol consumption (p < .01).

**Conclusions:** Emerging adults and their networks frequently posted substance use images, which are depicted as social activities and can reach large audiences. Additionally, posting substance use images was related to substance use attitudes, behaviors, and problematic behaviors. SNS monitoring may be a useful way to identify high-need and high-impact targets for Interventions.

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Stages of Addiction and Grit: A Comparison of Current, Ex-, and Never-Addicted Participants

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Background: Many researchers have successfully demonstrated that certain aspects of personality are associated with high-risk substance use or other detrimental lifestyle behaviors. Relatively little is known, however, about the character of those who have successfully recovered from addictions. The relationship between addiction recovery and grit, a personality trait that influences adherence to long-term goals, has yet to be determined.

Objective: Our goal is to determine if grit can be used to predict success in recovery. We hypothesized that the average grit score in the successfully recovered would be similar to that of controls without a history of addiction and that the average grit score in the currently addicted would be lower. We speculated that grit would be positively associated with recovery length.

Methods: A cross-sectional investigation using Duckworth’s 12-item Grit Scale compared grit among three distinct samples: 1) recovering participants from the web-based International Quit & Recovery Registry (IQRR), 2) currently-addicted participants from ongoing laboratory studies, and 3) never-addicted control participants from Amazon Mechanical Turk.

Results: Demographic information, substance use and recovery data, and grit scale scores from 85 recovering, 68 currently-addicted and 448 never-addicted participants were analyzed using multivariate linear regression models. We found that average grit did not differ significantly between never-addicted controls, currently-addicted subjects, and recovering subjects who met DSM-IV criteria for 12 months sustained remission. However, newly-recovering or recently-relapsing subjects appear to have significantly lower grit than other groups. Within the IQRR sample, grit demonstrates a positive correlation with length of time since last use.

Conclusions: Currently-addicted participants in this study have similar grit to never-addicted controls, but those who have just decided to quit or have relapsed within the last 12 months have lower grit. Grit is positively associated with length of time in recovery, suggesting that grit is an important characteristic for successful recovery. Further studies are needed to investigate if grit increases over a recovering individual’s lifetime and whether or not grit can be taught.

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Supportive Communication in a Mobile-Based Peer-to-Peer Alcohol Use Disorder Forum: Content Analysis and Effects on Relapse

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Background: Mobile technologies now facilitate peer-to-peer communication among those with Alcohol Use Disorder (AUD), but questions remain about who gives social support within online forums, what type, and how this operates to influence recovery outcomes for both givers and receivers. Further, men and women show well-established differences in seeking and giving social support, and may use online AUD forums differently and achieve different effects.

Methods: 71 men and 55 women posted on gender-specific discussion forums as part of a clinical trial of a mobile-based AUD relapse-prevention system. Content analysis of forum posts assessed presence of self-disclosure (of recovery problems, insights, and affect) and social support (including emotional, informational, and companionship support). While controlling for baseline characteristics and overall system use, features of messages posted within 4 months were used to predict subsequent risky drinking and continued use of the relapse-prevention system. Moderation by gender was tested.

Results: Women produced substantially more messages than men and these more often conveyed social support, typically emotional support. Self-disclosure of positive affect and insights was overrepresented in men’s messages. Only self-disclosure of recovery problems was associated with greater risky drinking at four months. Providing social support predicted continued use of the relapse-prevention system. Posting more messages was associated with higher risk of relapse by month twelve for men but not women.

Conclusions: Women’s use of the discussion forum suggested increased supportive communication relative to men. Further research is warranted to understand whether gender differences in supportive communication may be aggravated by gender segregation of online forums.

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THE EFFECT OF GREEK ORGANIZATION AFFILIATION ON ALCOHOL USE AND MISUSE AMONG BLACK COLLEGE STUDENTS

Brittany Stuart, Junior at Syracuse University, psychology and neuroscience major1, Jessica Desalu, Graduate student2, Aesoon Park, PhD in clinical psychology3
1Syracuse University, Dix Hills, NY; 2Syracuse University, Syracuse, NY; 3Syracuse University, Syracuse, NY

Introduction: Risky drinking and its associated negative consequences among Greek organization affiliated students are major public concerns. Studies have documented that Greek affiliated students show greater levels of risky drinking more than non-Greek affiliated students. However, most of existing studies of Greek drinking have used samples of predominantly White students, and the effect of Greek affiliation on alcohol outcomes among Black college students is rarely investigated. The purpose of this study was to examine differences in alcohol use behaviors between Greek organization affiliated and non-Greek affiliated Black college students.

Method: Participants were current Black college students who engaged in alcohol use at least once in the past 30-days (N = 249, 46% male, 15% Greek, mean age = 20 years). Eligible students were invited to a lab to complete a paper-and-pencil questionnaire on diverse health behaviors and correlates including affiliation of Greek life and alcohol consumption for the past 30 days.

Results: Independent sample t-tests and chi-square different tests displayed a significant difference in the frequency of alcohol use and number of heavy drinking days (but not in negative drinking consequences) between Greek and Non-Greek students.

Discussions: Our findings suggest that Black students in the Greek system are susceptible to risky drinking behaviors compared to non-Greek Black students. The effect of Greek affiliation on college drinking may be similar across major racial groups. Prevention and intervention efforts to curtail risky drinking among Black Greek affiliated students are warranted.

Track: Racial, ethnic, and cultural factors in health

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Friday

April 01, 2016

6:00 PM-7:00 PM
DISPARITIES IN PROSTATE CANCER SCREENING AMONG ASIAN AMERICAN MEN 50 YEARS OLDER FROM 2009 CALIFORNIA HEALTH INTERVIEW SURVEY

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Background: Prostate cancer is a leading cause of cancer-specific morbidity and mortality among men in the U.S. and is the most common cancer among Asian American men. Regular prostate-specific antigen (PSA) testing reduces the risk of death from prostate cancer. The purpose of this study was to assess if significant disparities exist in PSA testing for prostate cancer among Asian American men 50 years and older as well as identify factors associated with PSA testing.

Methods: Data for this study was used from the 2009 California Health Interview Survey (CHIS). We performed a univariate analysis to describe the frequency and proportion of select characteristics (age, race, education, having usual source of care, doctor’s recommendation). A multivariable logistic regression model was conducted with weighted analyses using svy from STATA version 13.

Results: Of 15,480 men aged 50 years or older, 57.7% reported having ever had PSA testing. In our adjusted analysis, compared to non-Asian, Chinese American (aOR .57, 95% CI: .38-.85), Korean American (aOR .43, 95% CI: .22-.86), and Vietnamese Americans (aOR .25, 95% CI: .12-.51) were less likely to have PSA testing. Being older, having a higher education, having a higher proportion of life in the U.S., having regular source of healthcare, and having doctor’s recommendation increased the likelihood of participation in PSA testing.

Conclusion: The finding indicates health disparities of prostate cancer screening among Asian American men. Asian American men who had less education and lack of healthcare had less of a chance to have PSA testing. More awareness and culturally and socially integrated educational programs to reach out these Asian American men are necessary to increase the likelihood for PSA testing. These enhanced and appropriate programs will reach the proper demographic group who need to have PSA testing.

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EARLY AND LATE ADVERSE LIFE EVENTS ASSOCIATED WITH POORER QUALITY OF LIFE, INFLAMMATION, AND INCREASED RISK OF MORTALITY

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Objectives: The aims of the study were to assess the prevalence of traumatic life events in advanced cancer patients and examine the association between past traumatic events and quality of life, biomarkers of inflammation, and survival.

Methods: Advanced cancer patients were administered a battery of questionnaires that assessed trauma, depression, pain, and fatigue. Blood was collected and serum levels of pro-inflammatory cytokines were assessed. Demographic and disease specific information was collected from the patients’ medical record.

Results: Of the 414 patients, 86% of patient reported a traumatic event during childhood and 93% reported a traumatic event as an adult. Childhood traumas including a major upheaval in the family, sexual trauma, and victim of violence was associated with higher levels of pain when compared to those who did not have this trauma. Being a victim of violence was also reported with depression and fatigue after a diagnosis of cancer. Adult traumas including sexual assault and being a victim of violence was associated with higher levels of pain. Death of a close family member or friend, major upheaval with one’s significant other was associated with depressive symptoms and fatigue (p=0.03). Sexual assault or being a victim of violence as an adult was associated with increased depressive symptoms after being diagnosed with cancer. Being a victim of violence before the age of 17 years was associated with elevations in IL-1beta (p=0.03) and Interleukin (IL)-2 as an adult (p=0.038). Death of a close friend or family member as an adult was also associated with elevations in TNF-alpha (p=0.006). After adjusting for demographic and disease specific factors that were significant related to survival, being reporting a major upheaval of the family as a child was associated with increased risk of mortality (p=0.034). IL-2 mediated the link between this traumatic event and survival.

Conclusion: Interleukin-2, which is related to tumor growth and development of metastases, mediated the link between early adverse events and survival.

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EFFECTS OF ADULT ATTACHMENT ORIENTATION ON GENERAL DISTRESS AND DEPRESSIVE SYMPTOMS AMONG FAMILY CAREGIVERS OF CANCER PATIENTS

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Approximately 1.6 million Americans were diagnosed with cancer in 2015. Recent trends toward longer survival with cancer and more outpatient care have led to an increase in family caregivers (FCGs). FCGs play a key role in providing support with treatment monitoring and symptom management, as well as providing instrumental and emotional support. Many FCGs report elevated levels of distress relative to the general population and even clinically significant levels of depression. Conceptualizing the caregiver-patient relationship via attachment theory allows us to better understand and predict FCGs' psychological outcomes, which affect their own quality of life, and also the quality of care they provide and, in turn, the patient's health outcomes.

This project uses data from a longitudinal study of colorectal cancer patients and their families to examine the association between attachment orientation and psychological distress and depressive symptoms among FCGs. Participants' distress levels, depressive symptoms, and attachment qualities were assessed using the Distress Thermometer, the Center for Epidemiologic Studies Depression Scale, and the Measure of Attachment Qualities.

Analyses using general linear models indicate main effects of attachment orientation on general distress and depressive symptoms among caregivers. Avoidant attachment, which reflects a preference for distance and independence, rather than interdependence, is significantly positively associated with distress ($p = .025$). Ambivalent-merger attachment orientation, marked by anxiety about the relationship and a desire to become closer to one's partner, was significantly negatively associated with distress ($p < .001$) and depressive symptoms ($p = .002$). Secure attachment orientation, which reflects comfort being close to one's partner, was significantly negatively associated with distress ($p = .015$).

Preliminary results indicate that attachment orientation is related to distress and depressive symptoms among FCGs. Attachment theory provides a helpful framework for understanding the psychological outcomes of FCGs; findings support the need for further study, as well as affirm the importance of early identification of at-risk caregivers and the development of interventions to support them.

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C006a 6:00 PM-7:00 PM

FACTORS ASSOCIATED WITH CANCER WORRY AMONG RURAL APPALACHIAN WOMEN

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Background: Colon cancer (CC) is the third most commonly diagnosed cancer and the third leading cause of cancer mortality in the United States (US). Compared with the US general population, Appalachian residents are at elevated risk of invasive CC and CC mortality. Cancer worry, which may influence preventive cancer screening, has been identified as a key behavioral construct by the National Cancer Institute. As women are more likely than men to worry about CC, we investigated the association of demographic, cultural (e.g., fatalism, religious commitment), and psychological factors (e.g., perceived risk, general mood) with CC worry among a sample of Appalachian women.

Methods: A cross-sectional study design was used. A random sample of rural Appalachian women (n = 134) at a local health department and a federally-qualified health clinic in rural Appalachia were surveyed. Factors associated with CC worry were selected based on the Self-regulation Model. Logistic regression was employed to calculate the odds ratios (OR).

Results: 45% of the participants expressed CC-related worry. CC worry was associated with higher than high school education level (OR = 3.63), absolute perceived risk for CC (OR = 5.82) high anxiety (OR = 4.68), and awareness of easy access (OR = 3.98) or difficult access (OR = 3.18) to health care specialists as compared to not being aware of the access. One out of two participants who were eligible for CC screening were adherent to the screening guidelines compared to one out of three in the US. There was no association between CC worry and adherence to CC screening guidelines.

Conclusion: CC worry was associated with some psychological factors such as general mood. This association indicates the perceived importance of CC and CC worry among the Appalachian residents.

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HEALTH KNOWLEDGE, SELF-EFFICACY AND BEHAVIORS IN A BREAST CANCER SURVIVORSHIP CARE PLANNING STUDY

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BACKGROUND: Survivorship care plans (SCPs) include treatment summaries and follow-up care recommendations to assist patients after cancer treatment. The few available studies evaluating the SCPs' efficacy include treatment summaries and follow-up care recommendations to assist patients after cancer treatment. The SCPs' utility and to understand how they may impact patients.

METHODS: Within a single-arm feasibility study, we delivered SCPs to post-treatment breast cancer survivors (BCS), assessed changes in participants' scores on self-reported outcomes from baseline (prior to SCP delivery) to a 3-month follow-up, and evaluated whether self-efficacy mediated the association between health knowledge and behaviors.

RESULTS: Female BCS (n=78; mean age=54 yrs.), were primarily non-Hispanic White (79.5%) and college educated (80.8%). Average time since diagnosis was 3.6 years; all received surgery; the majority had received hormone (79.5%), radiation (72.7%), and chemotherapy (62.3%) treatment. Follow-up scores on breast cancer knowledge (p< .0001), self-efficacy (p< .001), and information (p< .01) significantly improved from baseline; health behaviors (p< .11), treatment satisfaction and health-related quality of life did not significantly improve. After controlling for education and time since diagnosis, the relationship between knowledge and health behaviors was fully mediated by self-efficacy at baseline. The standardized regression coefficients between knowledge and self-efficacy (.36) and between self-efficacy and health behaviors (.50) were statistically significant; the standardized indirect effect was .17. The bootstrapped unstandardized indirect effect was .48, and the 95% confidence interval ranged from .16-.96.

DISCUSSION: This pilot study is limited by a single-arm design and a homogenous sample. However, findings suggest that SCPs may be related to improved health knowledge, information and self-efficacy, and they support the role of self-efficacy as a mediator of the relationship between knowledge and behavior.

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MOTHER’S PERCEPTIONS OF A MOTIVATIONAL INTERVIEWING AND MEAL RECORDING FEASIBILITY STUDY

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Maternal child feeding practices play an important role in the development of a child’s eating behaviors and subsequent weight status, therefore learning how to modify child feeding practices is essential. Although some studies have incorporated education on “best feeding practices” within multi-component obesity prevention interventions, few studies have directly attempted to modify maternal child feeding practices. The purpose of this study is to examine the feasibility of using motivational interviewing (MI) in conjunction with mother-child meal recordings to modify child feeding practices in a diverse group of low-income mothers with preschool-aged children. A convenience sample of mother-child dyads (N=15) are being recruited from a Special Supplemental Nutrition Program for Women, Infants and Children in the Providence, RI area. Mothers participate in three sessions: 1) a baseline session that includes an evening meal video recording with the target child, 2) a 1-hour MI session, and 3) a follow-up session that includes a satisfaction questionnaire. To assess maternal child feeding practices, an evening meal is video recorded and the Comprehensive Feeding Practices Questionnaire is administered. The evening meal video recording is incorporated into a MI session designed to enhance the use of optimal maternal feeding practices. On average, mothers are 32.2-years of age (SD=4.6) and target children are 3.4-years of age (SD=.95; Male=7). Sixty-percent of the mothers strongly agreed that the study increased their interest in learning strategies to feed their children in healthy ways. Moreover, these findings indicate that mother’s are interested in learning strategies to feed their children in healthy ways. Additionally, 70% of mothers strongly agree that the study was helpful in comparison to discussions with other professionals regarding child feeding. Most of the mothers found that watching themselves was “eye-opening” and applicable to their own lives. These findings indicate that mother’s are interested in learning strategies to feed their children in healthy ways. Moreover, these finding suggest that MI may be an effective strategy for modifying maternal child feeding practices.

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EFFECTIVENESS OF A CULTURAL-SPECIFIC MUSIC INTERVENTION IN MANAGING AGITATION AMONG ELDERLY WITH DEMENTIA IN HONG KONG

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Objective: This study examined the effectiveness of the use of a cultural-specific music intervention in managing agitated behaviors among elderly with dementia in Hong Kong residential homes.

Methods: Adopting a controlled pretest-posttest design, 73 elderly in the residential homes were divided into the intervention (n=40) and the control (n=33) groups. Elderly in the intervention group participated in a cultural-specific music intervention two times per week for a consecutive 8 weeks, while elderly in the control group maintain their usual activities. The intervention emphasized the cultural appropriateness of the choice of music, and was designed based on the musical tastes of local participants. Participants’ levels of agitated behaviors, aberrant motor behaviors, dysphoria, irritability and subjective mood were rated before, in-between, and after the intervention.

Among the participants, 69.9% (n=51) were female while 30.1% (n=22) were male. The mean age of the participants was 85.29 years old (SD=7.04), with an average Mini-Mental State Examination (MMSE) score of 13.02 (SD=6.03), indicating moderate to severe cognitive impairment.

Results: Results of Mixed ANOVA showed that significant improvements were found in agitation [$F(2, 64) = 3.11, p<0.01$, partial eta square = 0.06] and aberrant motor behavior subscales [$F(2, 64) = 3.22, p<0.05$, partial eta square = 0.07], suggesting that agitated and aberrant motor behaviors improved significantly across time as compared to the control group. No significant differences were found in irritability [$F(2, 64) = 1.06, p>0.01$], dysphoria [$F(2, 64) = 2.75, p>0.01$], and subjective mood [$F(2, 64) = 1.26, p>0.01$].

Conclusion: The present study proved that a cultural-specific music intervention was effective in managing agitated behaviors among elderly with dementia. This non-pharmaceutical intervention is simple, easy-to-deliver, and produces no side effects. Elderly homes could consider adopting this intervention as an initial strategy for the management of agitated behaviors before more invasive treatments to be used.

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EXAMINING PROPOSED MODELS OF MINDFULNESS MECHANISMS
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Objective: Dispositional mindfulness (DM) varies across individuals, protects against psychological distress, and can be enhanced through training. While various mechanisms have been proposed to explain how mindfulness enhances health, the mechanisms of DM and mindfulness training may differ.

Method: Undergraduate students (N=683; majority White, female, freshmen) completed an online survey of psychometrically sound measures of DM, proposed mechanisms, and emotional distress (stress, depressive and anxiety symptoms). Structural equation modeling was used to test two published models (Coffey et al., 2010; Shapiro et al., 2006), separately and in combination to identify a parsimonious model with strong predictive utility.

Results: The Coffey [mechanisms: clarity, non-attachment, emotion regulation (ER), rumination] and Shapiro (mechanisms: reperceiving, flexibility, exposure, values clarification, self-regulation) models each accounted for large amounts of variance in distress, but neither demonstrated full mediation or met fit indices criteria. In combining the models, latent variables were formed from nonattachment and reperceiving (r=.75) and ER and flexibility (r=.71). Non-significant paths and variables not predictive of distress (values clarification, self-regulation, exposure) were removed. The final model fit the data (NFI=.98, TLI=.97, CFI=.98, RMSEA=.069), accounted for 94% of the variance in distress, but neither demonstrated full mediation or met fit indices criteria. In combining the models, latent variables were formed from nonattachment and reperceiving (r=.75) and ER and flexibility (r=.71). Non-significant paths and variables not predictive of distress (values clarification, self-regulation, exposure) were removed. The final model fit the data (NFI=.98, TLI=.97, CFI=.98, RMSEA=.069), accounted for 94% of the variance in distress, and demonstrated full mediation. Direct paths in expected directions included: DM to clarity, non-attachment/reperceiving, and ER/flexibility, which each had paths to rumination; clarity, ER/flexibility and rumination to distress. There were also paths from clarity to ER/flexibility, and ER/flexibility to non-attachment/reperceiving.

Discussion: Result showed more support for the Coffeey model, which is consistent with its basis on DM. However, only when models were combined did full mediation between DM and distress occur and meet fit criteria. Further research is needed to de-confound mindfulness from its mechanisms and methods through which it is cultivated.

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SOCIODEMOGRAPHIC FACTORS AS PREDICTORS OF PSYCHOLOGICAL IMPROVEMENT AFTER A MINDFULNESS BASED STRESS REDUCTION PROGRAM
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Mindfulness Based Stress Reduction (MBSR) has been observed to associate with a number of favorable mental and physical health outcomes (Nyklícek et al. 2014; Snippe et al. 2015). While MBSR has shown improvements among both clinical and non-clinical populations (Fjorback et al. 2014), further examining sociodemographic factors such as age, ethnicity, gender, and education may better pinpoint specific demographics that associate with greater positive change over the course of MBSR. For the present study, data was collected from 119 participants prior to and following their completion of an MBSR program. Based on findings from previous studies (Olano et al. 2015; Lee and Yeo 2013), we hypothesized that MBSR would be most beneficial for female, college-educated participants. Improvements in experiential avoidance and psychological flexibility as measured by the Acceptance and Action Questionnaire (AAQ) were observed via pre- to post-AAQ sum scores (r(112) = 0.67, p < 0.001; r(111) = 6.83, p < 0.001). These analyses suggested significant improvements in psychological factors after the MBSR program. Additionally, post-AAQ sum scores were significantly associated with gender, age, and ethnicity (r(119) = -0.25, p < 0.001; r(118) = -9.53, p < 0.01; r(118) = 39.78, p < 0.001; r(118) = -1.03, p < 0.001). Furthermore, gender was found to be a significant predictor of post-AAQ sum scores (F(1, 117) = 7.62, p < 0.001), whereas education, ethnicity, and age were not (F(1, 117) = 0.40, p = 0.53; F(1, 117) = 0.30, p = 0.59; F(1, 117) = 0.09, p = 0.76). These results show that gender is an effective predictor of post-MBSR success. The other sociodemographic factors were not found to be predictors of success; however, they were associated with post-MBSR improvement. Future studies should further explore sociodemographic factors as potential predictors of experiential avoidance, psychological inflexibility and overall MBSR participant success in order to better target these programs.

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C048b 6:00 PM-7:00 PM

YOGA FOR RISK REDUCTION OF METABOLIC SYNDROME: PSYCHOLOGICAL OUTCOMES FROM A RANDOMIZED CONTROLLED PILOT STUDY

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The primary treatment for adults with risk factors for metabolic syndrome (MetS) is lifestyle change; however adoption of behavioral interventions to increase physical activity and improve diet is limited and adherence is poor. In addition, most existing interventions do not address psychological stress, which also impacts the severity of MetS. Yoga is an ancient form of physical activity that incorporates psychological components and is a promising intervention for improving MetS. Key psychological components of yoga include maintaining attention and relaxation. This pilot randomized controlled trial assessed the effect of a 12-week yoga program combined with an evidence-based health education program (HED) compared to HED alone on perceived stress and related psychological outcomes (i.e., mindfulness, health self-efficacy, mood) as a secondary aim of a larger study. Of the 67 adults with MetS enrolled (mean age [SD] = 58 [10] years; 51% Male; 78% non-Hispanic White), 56 participants completed the 12-week assessment. Although this study was not powered to detect statistically significant differences, those in the combined group showed significant improvements as compared to HED alone on a mindfulness subscale reflecting an increased ability to act with awareness (p < 0.05). In addition, the combined group showed small to medium effects as compared to HED alone for improvements in perceived stress (d = 0.40), overall mindfulness (d = 0.33), health self-efficacy (d = 0.17) and mood disturbance (d = 0.44; p-values > 0.05). This is the first study of yoga among participants with MetS that also implemented a lifestyle education intervention to evaluate the potential unique effects of adding a mind-body practice. A larger clinical trial is warranted to further investigate these promising preliminary results supporting that yoga improves psychological outcomes above the influence of a lifestyle education program alone among adults at high risk for cardiometabolic disease.

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C048a 6:00 PM-7:00 PM

THE EFFECTIVENESS OF MUSIC THERAPY GROUP IN ELDERS WITH DEPRESSION

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Objectives: To evaluate the effectiveness of music therapy group in multi-domains and explore the feasibility of various measures in response to elders with depression

Background: To tackle with geriatric depression, music therapy is considered as alternative approach. This study examined the effectiveness of music therapy groups to elders with depression in physiological, syntactical and semantic levels.

Methods: The participants were 85 Chinese elders with depressive mood. They were randomized into music therapy groups (n=44) or control groups (n=41). Three psychological measures (Geriatric Depression Scale, Positive and Negative Affective Schedule and Face Scale) were recorded before and after intervention. For each music session, vital signs, blood pressure and heartrate, were measured to explore physiological change. Moreover, a music-therapy based measure, Nordoff Robbins Scale, investigated the musical communication with sessions. Qualitative feedback of participants was also collected.

Results: Lower level of depressive symptoms, lower negative affect and elevated mood state, all with statistical significance, were found in music therapy group. Variation of heartrate and improved musical communication within each music session were also observed. Between-group effect, using mixed ANOVA, was not statistically significant. Feedback from participants reaffirmed that music making was an aesthetic experience that assist them to alleviate depressive mood.

Discussions: Whilst there was no significance difference between groups, the results support that music exerts effects to elders with depression by reducing depressive symptoms and negative affect. Physiological changes could be facilitated through music while musical communication was enhanced syntactically. The practical implications of findings were discussed

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DIABETES EN EL CAMPO: HOW TYPE 2 DIABETES PATIENTS ARE SUPPORTED THROUGHOUT THEIR DIABETES EXPERIENCE IN THE DOMINICAN REPUBLIC

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Background: Adults in the Dominican Republic have a high prevalence of type 2 diabetes, particularly in rural areas where appropriate diabetes management services are sparse.

Purpose: A qualitative study was conducted to explore patient and staff experiences in a rural diabetes care program in the Dominican Republic.

Methods: We conducted a total of 50 in-depth interviews with patients, community health workers, and providers at two clinics. In this paper, we utilized 29 patient interviews (mean age = 55) to explore the dimensions of social support utilized across each patient’s diabetes narrative. Dimensions of social support were defined as emotional, instrumental, informational, and appraisal support.

Results: Using a narrative analysis, we found that patients typically spoke of their diabetes experience around three specific time periods, we called epochs: diabetes discovery, program enrollment, and after enrollment. Within each of these epochs we found distinct patterns of social support actors who assisted participants in their diabetes self-management, as well as the most cited dimensions of social support at these times. In the diabetes discovery epoch, patients often did not describe an explicit support actor or form of support, rather patients often learned about diabetes through seeking care for another health condition. During the program enrollment epoch we found that peers, who often provided informational and instrumental forms of support were the most cited social support actors. For post-enrollment, patients described their partners or other family members as providing instrumental forms of support such as cooking or tracking medication adherence. Moreover, program staff were described as providing informational support about diet, medication, and exercise to better manage their diabetes.

Conclusions: The study results underscore the need to assess and leverage various forms of social support and social support actors at different times of the diabetes experience for Dominican T2D patients in self-management programs and interventions.

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EXTERNALIZING BEHAVIORS, DISCLOSURE, AND DIABETES MANAGEMENT IN- ADOLESCENTS WITH TYPE 1 DIABETES

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Externalizing behaviors may undermine type 1 diabetes management during adolescence, and may be more common in minority youth with diabetes (Lord et al., 2014). Disclosure to parents about diabetes is associated with better glycemic control during adolescence (Osborn et al., 2012), yet youth who exhibit problem behaviors tend to disclose less to parents for fear of disapproval and punishment (Solis et al., 2015). The current study examined whether the relationship between externalizing behaviors and diabetes outcomes is mediated by disclosure to parents in an age- and sex-matched sample of Caucasian and Latino youth. Adolescents (N = 118; 45.8% male; 52.5% non-Latino Caucasians; 47.5% Latino; type 1 diabetes > 1 year: aged 10 to 15 years) and their mother completed measures of adolescent externalizing behaviors (attention problems, rule breaking, and aggressive behavior), disclosure of diabetes to parents, and diabetes-related outcomes (adherence and depressive symptoms); metabolic control was indexed from medical records. Attention problems, rule breaking, and aggressive behaviors were highly correlated (r > .70), and were composited into a single variable. Latino adolescents had a higher levels of externalizing behaviors than Caucasians (r < .001). Externalizing behaviors were associated with poorer diabetes outcomes (r = -.34, .23, and .45, p < .02), for adherence, glycemic control, and depressive symptoms, respectively. A composite of disclosure to mother and father was created. As a result, disclosure to parents partially mediated the relationship between externalizing behaviors and metabolic control (r = -.048), adherence (r = .03), and depression (r = .032) Additional clinical implications and differences between Latino and Caucasian adolescents relative to management outcome through externalizing behaviors and disclosure will be discussed.

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How Can Clinical Practices Pragmatically Increase Physical Activity for Patients with Type 2 Diabetes? A Systematic Review

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Background: Although regular physical activity (PA) is a cornerstone of treatment for type 2 diabetes (T2D), most adults with T2D are sedentary. Randomized controlled trials (RCTs) have proven the effectiveness of PA behavioral interventions for adults with T2D, but were rarely conducted in healthcare settings. We sought to identify PA interventions that are effective and practical to implement in healthcare settings: Aim 1—Assess the potential to implement interventions in healthcare settings; Aim 2—Assess the prevalence of intervention characteristics related to implementation and effectiveness in the highest-ranking interventions from Aim 1.

Methods: An initial PubMed search yielded 4,813 articles. Two independent raters identified studies meeting our criteria: behavioral PA interventions coordinated by healthcare clinics for patients with T2D. For Aim 1, we used an existing tool to assess the 9 domains of the Pragmatic-Explanatory Continuum Indicator Summary 2 (PRECIS-2) scale and 5 external validity domains from the Reach, Effectiveness, Adoption, Implementation, Maintenance model (RE-AIM). Two raters scored each domain on a scale of 1 to 5, where 5 is most pragmatic.

Results: The 36 RCTs (n = 13,358 participants) included had a mean PRECIS-2 score = 3.90 (SD: 0.40). Only 36% and 8% of RCTs, respectively, reported on RE-AIM domains of participant engagement and intervention cost. In the most pragmatic quartile of interventions (n = 10 RCTs, mean PRECIS-2 score = 4.38, SD: 0.19), 70% used tailored behavioral counseling; 20% tracked PA levels; 20% used technology and personal counseling; and 20% significantly increased PA behavior.

Discussion: A minority of PA interventions for adults with T2D were both effective and pragmatic for implementation in healthcare settings. These should be tested for widespread use with implementation trial designs.

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RELATIONS OF COUPLES' COMMUNAL AND NONCOMMUNAL LANGUAGE TO SUPPORT AND SELF-CARE FOR PEOPLE WITH TYPE 2 DIABETES

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Effective diabetes management depends, in part, on support from one’s spouse or romantic partner. We examined the language patients and partners use when working together to manage diabetes. We hypothesized that communal language (“we” pronouns) would be related to more partner support and better diabetes self-care, and noncommunal language (“I” and “he/she” pronouns) would be associated with less partner support and worse diabetes self-care. To address this, interviews with 125 couples in which one person was diagnosed with diabetes within the past 3 years (59% white; 41% black; 55% male) were transcribed. We used LIWC software to count communal and noncommunal pronouns. We also measured partner supportive and unsupportive behavior, marital quality, and patient self-care and self-efficacy. Patient use of communal pronouns was associated with greater partner instrumental (ρ = .08) and emotional support (ρ < .05) and less partner avoidance (ρ < .05), whereas patient use of noncommunal pronouns was associated with less partner instrumental and emotional support and greater partner avoidance (all ρ’s < .05). Use of communal pronouns was not associated with marital quality, but noncommunal pronoun use was related to lower marital quality for patients (ρ < .05) and partners (ρ = .07). Patient use of communal pronouns was associated with greater self-efficacy (ρ = .08), and non-communal pronoun use was associated with lower self-efficacy (ρ < .05). Although patient language was not related to self-care, partner communal pronoun use was associated with better self-care (ρ < .05) and partner noncommunal pronoun use was associated with worse self-care (ρ = .06). In sum, both communal and noncommunal language was associated with partner supportive and unsupportive behavior, but relationships were stronger for noncommunal language. That partner language was linked to better patient self-care suggests the importance of involving partners in diabetes management.

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SOCIAL SUPPORT MODERATES THE RELATIONSHIP BETWEEN GLYCEMIC CONTROL AND PSYCHOSOCIAL OUTCOMES IN TYPE 2 DIABETES

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In addition to its serious physical health consequences, type 2 diabetes (T2DM) is associated with high stress and low physical and emotional health-related quality of life, particularly among those with poor glycemic control. The “buffering hypothesis” suggests that social support protects against the negative influence of glycemic control on psychosocial outcomes, though evidence to support this hypothesis is inconsistent. We re-examined this hypothesis in 185 adults with physician-diagnosed T2DM (55% male, MAge = 49, MBMI = 28.8 kg/m2, MA1c = 7.9%). Participants completed an electronic survey about diabetes experiences, psychological stress, health-related quality of life, and social functioning. We used a general linear model to test for buffering effects of social support on the relationship between glycemic control (HbA1c) and (1) stress, and (2) health-related quality of life (physical and emotional). Both glycemic control and social support show main effects on stress and physical quality of life (p < 0.03); the interaction between glycemic control and social support was significant only for stress (p = 0.04, np2 = 0.02) and physical quality of life (p = 0.04, np2 = 0.02). Differences in stress between those with good and poor glycemic control were greater at higher levels of social support (β = 0.04, SE = 0.02). Physical quality of life was highest among participants with poor glycemic control who reported high social support (β = 0.17, SE = 0.08). Among those with better glycemic control, high social support was associated with lower physical quality of life. These findings provide additional evidence consistent with the buffering effect of social support on the relationships between glycemic control and (1) stress, and (2) physical health-related quality of life. Interventions that emphasize the benefits of social support may be beneficial for improving the quality of life of adults with T2DM who have poor glycemic control. Such interventions may need to focus on the content or type of social support in order to benefit those who have better glycemic control.

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SOCIOECONOMIC INFLUENCES TO IDENTITY AMONG EMERGING ADULTS WITH TYPE 1 DIABETES
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Emerging adulthood is an important developmental period after adolescence but before established adulthood where individuals explore their identity (Arnett, 2000). For emerging adults with type 1 diabetes, developing a strong sense of identity, which can be facilitated through exploration, is linked to better metabolic control (Luyckx & Seiffge-Krenke, 2009). However, emerging adults with diabetes explore their identity less than their healthy counterparts (Luyckx et al., 2008). Further, those with lower socioeconomic status have poorer diabetes management, and may not have standing resources (e.g., adequate healthcare) that provide them the freedom to explore their identity.

The present study examined whether SES was associated with diabetes management through adult identity development. Emerging adults from a larger study (n = 125, mean age = 20.53 years, 64.8% female, 86.9% Caucasian) completed measures of adult-like traits (e.g., financial independence). SES was sourced from census data, and metabolic control was indexed from medical records. Exploratory factor analysis revealed that most of the traditional adult traits were captured by a single latent adult identity factor. Structural equation modeling showed that lower SES among emerging adults was linked to a latent adult identity variable (i.e., lower SES associated with higher adult identity; p = .014), but neither SES nor adult identity were associated with either metabolic control or adherence (p > .05). Identifying with traditional adulthood traits during the emerging adult years may be due to having fewer socioeconomic resources to freely explore one’s identity. Clinical implications are discussed.

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AT HOME HIV TESTING: WHO IS SEEKING IT?
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The CDC recommends men who have sex with men get tested for HIV every three months after having unprotected anal sex (CDC, 2015). Fortunately, HIV testing is easier than ever with the advent of at-home HIV testing kits which allow one to test in the privacy of one’s own home. However, 1 in 8 people living with HIV are unaware of their positive status (CDC, 2015). With the HIV testing gap still such a pressing issue, we examined who is actually getting tested for HIV and who we are missing.

Surveys were collected from 400 gay and bisexual men at the 2015 Atlanta Pride Festival. Men answered questions about their HIV testing history, sex behavior, and whether or not they would like to receive an at-home HIV test. To understand who requested HIV tests, we decided to look at sex behavior as a meaningful predictor of testing uptake, including number of sex partners, incidences of anal sex with condoms, and incidences of anal sex without a condom in the last four months. Logistic regression analyses revealed that the number of sex partners in the last four months was a marginal predictor of HIV testing uptake ($\beta = 1.06, \chi^2(1) = 3.52, p = .06$). Interestingly, the incidences of anal sex without a condom did not predict HIV testing uptake ($\beta = 1.01, \chi^2(1) = .43, p = .51$); however, having anal sex with a condom did predict HIV testing uptake ($\beta = 1.05, \chi^2(1) = 4.6, p < .05$). Next, we analyzed number of male sex partners, age, incidences of anal sex without a condom, and incidences of anal sex with a condom within a hierarchical logistic regression. Despite controlling for the other predictors, having sex with a condom still predicted HIV testing uptake above and beyond all other sex behaviors ($\beta = 1.04, \chi^2(1) = 4.19, p < .05$).

These results are as intriguing as they are troubling. Using HIV testing as a means of prevention would require those at highest risk for contracting HIV to get tested every 3 months. However, the results of the analyses show that those who are already taking pro health behaviors by using condoms are the ones with the higher uptake of HIV testing. Participants who reported higher risk behavior by having sex with multiple partners without using condoms were significantly less likely to get an at-home HIV test than those who were using condoms.

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HOUSING DISCRIMINATION, HOUSING STATUS, AND HIV RISK BEHAVIOR AMONG U.S. MID-ATLANTIC SEXUAL AND GENDER MINORITY INDIVIDUALS

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According to national reports, transgender and gay individuals face elevated rates of housing discrimination. Qualitative research on lesbian, gay, bisexual, and transgender (LGBT) youth has identified housing discrimination and unstable housing as risk factors for harassment, sexual commodification, and psychiatric symptoms. The aim of the current study was to examine rates of housing discrimination and unstable housing among men who have sex with men (MSM), transgender women (TGW), and transgender men (TGM), and to identify health-related correlates. Participants were 217 MSM, 116 TGW, and 57 TGM recruited from community venues in Richmond, VA and Washington, DC who completed a self-administered, anonymous survey assessing housing discrimination based on sexual orientation or gender identity, stability of housing in the past 12 months, and HIV risk behavior. TGW reported the highest rates of housing discrimination (25.9%) and unstable housing (52.6%) but substantial numbers of MSM (9.2% discrimination, 28.8% unstable housing) and TGM (10.5% discrimination, 26.3% unstable housing) reported these experiences. In all groups, housing discrimination was associated with unstable housing (all p < .05). Controlling for age, race, education, and LGBT group, unstable housing was associated with recent commercial sex work (CSW), OR = 2.94 (95% CI = 1.48, 5.84), p < .01 as well as having multiple vaginal/anal sex partners in the past 3 months, OR = 2.08 (95% CI = 1.27, 3.40) p < .01. A Sobel test indicated that the relationship between housing instability and multiple sex partners was partially mediated by CSW, Z = 2.70, p < .01. Overall, findings suggest that societal-level factors such as housing discrimination and instability may drive members of marginalized groups towards survival behavior such as CSW that has adverse health consequences.

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ANXIETY AND MINDFULNESS IN AN MS POPULATION

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Background: Multiple Sclerosis (MS) is a neurodegenerative and inflammatory chronic disease of the central nervous system, characterized by substantial impacts on physical, cognitive, and psychological functioning. Anxiety occurs in up to 57% of patients with MS, and is associated with depression, pain, fatigue, stress, and lower self-efficacy and quality of life. However, anxiety in the MS population often goes untreated. One potential treatment is mindfulness, which has been shown to be predictive of lower anxiety through emotion regulatory mechanisms, such as rumination and worry, in other populations.

Objectives: The present study sought to examine the relationship between trait mindfulness and anxiety in patients with MS. It was hypothesized that trait mindfulness would predict anxiety, such that trait mindfulness would be associated with lower anxiety in this population.

Methods: Eight hundred individuals with MS were recruited through the North American Research Committee on MS (NARCOMS) as part of a larger study. Participants completed an online survey that included measures of trait mindfulness (Mindfulness Attention Awareness Scale) and anxiety (Hospital Anxiety and Depression Scale). Hierarchical regression was conducted to assess the ability of trait mindfulness to predict anxiety, after controlling for age, education, and disability (Patient Determined Disease Steps).

Results: Age, education, and disability were entered in step 1, followed by trait mindfulness in step 2. The total variance explained by the model was 33.2%, F (4,765) = 95.20, p t (765) = -17.21, p < .001 of anxiety when age, education, and disability were controlled.

Conclusions: Trait mindfulness significantly predicted lower levels of anxiety among patients with MS. As such, interventions that incorporate cultivating mindfulness may be helpful in treating anxiety in this population.

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**ANXIETY: THERE’S AN APP FOR THAT**

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**Background:** Smartphones and mobile devices have become ubiquitous, and with the rapid advances in technology, the number of health applications (apps) that are available for consumers on these devices is constantly growing. In particular, there has been a recent proliferation of anxiety apps.

**Aims:** However, there has been no review of the quality or content of these anxiety apps. Additionally, little is known about the types of anxiety apps that are available, their purpose, the features they contain and the degrees to which the available anxiety apps incorporate evidence-based practices. Therefore, our objective in this study was to systematically review the commercially available anxiety apps.

**Methods:** A list of anxiety apps was collected on December 2015, using the Power Search function of iTunes and Google Play, with the key terms “anxiety”, “anxiety relief”, “anxiety cure”, “worry”, “worry relief”. The search included apps compatible with both iPad and iPhone. Data for the review was extrapolated from the available app description. App descriptions typically include: an overall summary of the app, a list of app’s features, users’ ratings and reviews, and selected screenshots of the app.

**Results:** Of 3052 apps identified on iTunes and Google Play, 122 met inclusion criteria and were further reviewed. Their review indicates that currently available anxiety apps often lack the involvement of health care professionals in their development, only a subset have been theory-based, and that very few of them have been rigorously tested.

**Conclusions:** To summarize, although commercially available anxiety apps have the potential to increase access to care, it seems as though technology has raced ahead of the supporting science. As the consumer demand is growing, there is a need to rigorously test anxiety apps. To better leverage the potential of technology for health care interventions, perhaps science needs to meet technology halfway and offer theoretical models for developing and testing such interventions in a timely manner.

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DECREASED SOUND TOLERANCE CONDITIONS

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Decreased sound tolerance (DST) conditions, including misophonia and hyperacusis, are emerging clinical conditions in behavioral medicine. Misophonia is an extreme negative emotional response to specific sounds (e.g., people chewing, swallowing). Hyperacusis involves high sensitivity to sounds below normal sound sensitivity thresholds. Both conditions often co-occur with tinnitus. Although research on DSTs has found that they are associated with anxiety, autistic traits, and sensory defensiveness, little is known about their associations with health behaviors and personality. This study examines the association of DSTs with behavioral health factors within a longitudinal health and genetics survey study of undergraduates. The present work (n=975, Mage=19.9, 56.2% female) examines DST conditions and their correlates. 21.6% of students endorsed tinnitus, 31.4% endorsed misophonia, and 6.9% endorsed hyperacusis. Lower sleep quality was reported by students with misophonia, tinnitus, and hyperacusis compared to students without the conditions (all \( p < .003 \)); there was no difference in lifetime cigarette use for hyperacusis (\( \chi^2 = 11.85, p = .80 \)). Students with hyperacusis self-identified as being heavier drinkers than those without hyperacusis (\( r^2 = 11.85, p = .02 \)). No differences were found for those who did or did not endorse tinnitus or misophonia (both \( p > .40 \)). On big five personality dimensions, both students with tinnitus and students with misophonia scored lower on extraversion (both \( p < .001 \)), conscientiousness (both \( p < .04 \)), than people without the conditions. No personality differences were found for hyperacusis. In this large, normative university student sample, DST conditions were not only prevalent but strongly associated with certain negative health behaviors and personality traits.

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BODY IMAGE AND MENTAL HEALTH IN AFRICAN AMERICAN MEN WITH PTSD

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Background: Post-traumatic stress disorder (PTSD) is a mental disorder that affects nearly 7% of adults in the US. Poor body image is shown to be a co-occurring problem, as it is known to add stress, depression, and anxiety. Few studies have explored the relationship between PTSD and body image in men, and none have examined minority men.

Purpose: To examine the cross-sectional relationship among PTSD, body image, and mental health in African American (AA) men.

Methods: A total of 44 AA men ages 19-67 (46.2±11.4) completed a battery of physical and mental health measures. PTSD was assessed using the PTSD Checklist-Civilian, and participants were classified as having (n=20) or not having (n=24) PTSD using the recommended cutoff of ≥30. Body image, depressive symptoms, anxiety, and stress were assessed using the Body Areas Satisfaction Scale, Center for Epidemiological Studies Depression Scale, State Trait Anxiety Inventory, and the Perceived Stress Scale, respectively. Height and weight were measured and body mass index (BMI) was calculated. Group differences were analyzed using independent samples t-tests.

Results: The PTSD group reported significantly worse body image (3.3±.9 vs. 3.8±.8; \( t = -2.2, p = .03 \)), more depressive symptoms (13.9±5.1 vs. 5±4.5; \( t = -5.9, p < .01 \)), higher anxiety (46.7±8.5 vs. 33.3±9.2; \( t = 4.9, p < .01 \)), and greater perceived stress (19.3±6.1 vs. 11.1±5.7; \( t = 4.6, p < .01 \)). Further analysis of the PTSD group showed the PTSD score to be significantly correlated with depression (\( r = .65, p < .01 \)), anxiety (\( r = .54, p < .01 \)), and stress (\( r = .47, p < .05 \)), but this was attenuated for depression (\( r = .54, p = .02 \)) and became non-significant for anxiety (\( r = .37, p = .12 \)) and perceived stress (\( r = .31, p = .20 \)) after controlling for body image. BMI was not significantly different to any variable.

Conclusions: The results of this study suggest that AA men with PTSD have worse body image and are more depressed, anxious, and stressed than AA men without PTSD. The results also suggest that poor body image significantly contributes to and may exacerbate the anxiety and stress reported by AA men with PTSD.

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BRIEF BEDSIDE CBT FOR PATIENT UNDERGOING TRANSAORTIC VALVE REPLACEMENT (TAVR): A RANDOMIZED CONTROLLED TRIAL

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Depression occurs in 15-40% of cardiac surgery patients and has been associated with cardiac morbidity, re-hospitalization, decreased functional status, and lower quality of life (QOL). Cognitive behavioral therapy (CBT) has been an effective, brief, evidence-based treatment for depression and anxiety in cardiac patients. Limited research has studied the mental health of patients undergoing transcatheter aortic valve replacement (TAVR). Preliminary studies have shown TAVR to benefit physical function and QOL, with modest gains in mental health compared to standard therapy (Reynolds et al., 2011). However, to date no published trials have looked at the impact of CBT in treating depression or anxiety in these patients. Here we report preliminary findings of an ongoing randomized clinical trial of CBT for TAVR patients. Twenty-eight adults were randomized to CBT or control. CBT recipients received a brief bedside therapy modeled on the intervention described in Dao et al. (2011). Outcome measures completed by all patients include BDI-II, STAI-Trait, SF-12v2, MLHFQ, and a health care utilization survey. Preliminary results are consistent with previous studies showing improved physical functioning in both groups post-TAVR (MLHFQ: \( t=5.26, p < .000 \) SF-12v2 PCS: \( t=-6.50, p < .000 \)). At 1-month follow-up, there were no statistically significant differences between the two groups on mental health variables; however, data trend toward greater improvement in the CBT group on measures of depression and mental health QOL (BDI-II: \( F=1.71, p=.20; \) SF-12v1 MCS: \( t=1.08, p=.29 \)). CBT patients reported lower health care utilization at follow-up (\( t=-2.45, p=.02 \)). These preliminary data suggest brief CBT to be a promising intervention for mood management in TAVR patients. Furthermore, it is proposed that CBT may help patients cope with health concerns to reduce unnecessary medical visits. These results are limited by sample size, which we expect to address with our ongoing investigation. Further, the relative psychological health of our sample may limit the generalizability of findings.

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CHANGE IN DEPRESSIVE SYMPTOMS FROM GESTATION TO POSTPARTUM IS ASSOCIATED WITH WOMEN’S DIURNAL CORTISOL

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About 10-15% of women experience depression in the first 12 months postpartum (PPD). To better understand and treat PPD, it is critical to identify predisposing factors (e.g., prior depression) and associated biomarkers of risk within the period of transition to disorder. Depression appears to affect the hypothalamic pituitary adrenal (HPA) axis’ ability to regulate the stress hormone cortisol. Depression and stress during pregnancy are associated with changes in maternal cortisol. No known study has included prospective, repeated measures of depression to examine how pre- to postpartum changes are associated with altered maternal HPA activity. Women (\( N = 118, \) Mage = 26.6, Caucasian: 64%) were recruited based on SCID depression diagnoses and oversampled for current (34.6%) or past (19.5%) depression. Women completed the Inventory of Depressive Symptoms (IDS) in second and third trimesters and one month postpartum. Across all groups, pre- to postpartum IDS scores decreased on average. Saliva was collected 30 days post-birth on three days: upon waking, 30 minutes post-waking, and at bedtime, and was assayed for cortisol. The diurnal cortisol awakening response, evening levels, area under the curve, and daily slope were calculated. Analyses tested associations between change in pre- to PPD symptoms, and PPD symptoms alone, on postpartum cortisol. Controlling for age, a greater increase in symptoms was associated with higher evening cortisol (\( R^2(105) = 6.356, p = .002, R^2 = .108 \)) and a flatter slope (\( R^2(102) = 5.317, p = .002, R^2 = .135 \)). Greater PPD symptoms were also associated with higher evening cortisol and a flatter slope. Conversely, diurnal cortisol did not predict PPD. Thus, PPD may provoke alterations in cortisol rather than cortisol initiating greater PPD. While preliminary, the results encourage further research examining PPD onset and changes in the HPA axis. Such studies may also clarify the pathophysiological links between maternal depression, HPA activity, and potential dysregulation of fetal/infant stress responses.

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CLINICAL PREDICTORS OF OUTCOMES IN COGNITIVE BEHAVIOR THERAPY FOR DEPRESSION IN CARDIAC PATIENTS

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Background: Previous research has shown that homework completion increases the efficacy of CBT for depressed cardiac patients, and that beliefs about depression affect engagement in CBT. We evaluated whether homework completion and beliefs about depression predict ability to apply CBT skills in daily life, and whether the latter predicts favorable outcomes.

Methods: 157 cardiac patients with major depression participated in up to 12 sessions of CBT. The Illness Perception Questionnaire-Revised (IPQ-R) was used to measure beliefs about depression; a sum score was calculated with higher scores indicating more negative beliefs. A Life Events Record (LER) was used to assess stressful events in the last year. Both questionnaires were administered prior to the first CBT session. Homework completion was documented by the therapist. The patient's ability to apply CBT skills was assessed by the therapist at the final session on a 3-point Likert scale. The Hamilton Rating Scale for Depression (HAM-D) was used to assess the 3-month post-treatment severity of depression.

Results: A model with ability to apply CBT skills as a mediator of the effects of beliefs about depression, stressful events, and homework on depression was tested. Goodness of fit was satisfactory ($\chi^2=4.71$, $p=.19$; RMSEA=.07; CFI=.97; SRMR=.04). Beliefs about depression and stressful events exerted negative effects on ability to apply CBT skills ($B=-.21$, $p<.01$ and $B=-.29$, $p<.01$, respectively), and homework completion exerted a positive effect on the same variable ($B=.25$, $p<.01$). In turn, ability to apply CBT skills in the future had an inverse (beneficial) effect on post-treatment depression ($B=-.51$, $p<.01$). The indirect effects of depression beliefs and homework completion remained significant ($B=.11$, $p<.05$; $B=.13$, $p<.01$; $B=.15$, $p<.05$ respectively).

Conclusions: Beliefs about depression, homework completion, and ability to apply CBT skills to future problems predict the outcome of CBT for depression in cardiac patients.

DAILY FEATS: RESULTS OF USER FEEDBACK ON AN ACCOMPLISHMENT-ORIENTED MOOD MANAGEMENT APP

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Background: The need for effective and accessible mental health resources is broadly documented. Daily Feats is an app designed to promote mood management through providing progressively more challenging tasks to accomplish each day. This app assists users in recognizing their daily accomplishments, while using lightweight gamification strategies to prompt individuals to further engage in meaningful and rewarding activities.

Methods: Daily Feats was made publicly available on the Google Play store and included as part of a trial that provided mobile apps along with health coaching. Individuals who consented to be contacted for research purposes and used the app on multiple occasions were invited to provide user feedback. The questionnaires and interviews consisted of Likert-scale ratings of the app’s likability, ease of use, learnability and perceived helpfulness, as well as open-ended questions regarding benefits of and barriers to Daily Feats app use.

Results: Twenty-one adult Daily Feats users (M age = 37.8, SD = 13.7, 81% female) provided feedback. On a 1 to 7 Likert-type scale, they rated the app as highly likable (M = 5.7, SD = 1.6), easy to use (M = 6.2, SD = 1.0), easy to learn (M = 6.5, SD = 1.0), and helpful (M = 5.6, SD = 1.6). Users noted using the app during small chunks of convenient time that were typically tied to other routines. Qualitative feedback revealed themes of enjoyment of the data visualizations, receipt of positive feedback, and embedded game elements. Users reported desire for additional abilities for personalization, including room to make additional notes on the checklist, and set multiple reminders throughout the day.

Conclusions: Results demonstrate the perceived benefits of a straightforward accomplishment-oriented mood management app, and offer valuable considerations in the design of future mood management apps.

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DEPRESSIVE SYMPTOMS ARE ASSOCIATED WITH UNHEALTHY WEIGHT CONTROL BEHAVIORS IN EMERGING ADULTS

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Unhealthy weight control behaviors (UWCB) such as self-induced vomiting and diuretic/laxative abuse can lead to adverse outcomes including tooth decay, damage to the esophagus, digestive problems, and clinical eating disorders. Risk of eating disorders is elevated among those experiencing depressive symptoms; however, it is unknown whether depressive symptoms increase the risk of UWCB as well. This study examined the hypothesis that depressive symptoms; however, it is unknown whether depressive symptoms increase the risk of UWCB as well. This study examined the hypothesis that depressive symptoms are positively associated with UWCB cross-sectionally and prospectively over 1 year in a cohort of US emerging adults.

Data come from the 4th and 5th years of follow-up of the NEXT Generation Health Study, a nationally representative sample of US emerging adults (W4 n = 2165, mean±SD age=19.16±0.54 years, 55% female). W4 depressive symptoms were assessed using a modified PROMIS pediatric depressive symptoms scale; in both waves, participants reported past-year engagement in UWCB (e.g., diet pills, vomiting, laxatives, diuretics, and smoking cigarettes for weight loss). Multiple logistic regressions controlling for sex, body mass index and race/ethnicity estimated the cross-sectional association of depressive symptoms with odds of engaging in any (versus none) UWCB at W4 and the prospective association of W4 depressive symptoms with odds of increasing the number of UWCB from W4 to W5.

Depressive symptoms were positively associated with UWCB in W4 (OR=1.47; 95%CI=1.17, 1.85), and W4 depressive symptoms were associated with increased UWCB from W4 to W5 (OR=1.53; 95%CI=1.19, 1.97). Consistent with research on clinically diagnosed eating disorders, depressive symptoms were positively associated with concurrent and prospective UWCB in a contemporary, nationally representative sample of young adults. Future research should explore effective strategies to reduce the risk of UWCB among persons experiencing depressive symptoms.

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DEVELOPMENT OF THE DST-10: A BRIEF DECREASED SOUND TOLERANCE ASSESSMENT TOOL

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Decreased sound tolerance (DST) conditions, including misophonia and hyperacusis, are emerging clinical conditions in behavioral medicine. Misophonia involves an extreme emotional response (often anger, disgust, or annoyance) to specific sounds (such as people chewing, swallowing, tapping their foot on the floor, etc.), while hyperacusis is defined by high sensitivity to sounds below normal sound sensitivity thresholds. Recent prevalence studies indicate that DST problems are relatively common in the general population, with prevalence estimates ranging from 16-20% for misophonia and 9-26% for hyperacusis. Although research on these DST conditions is increasing, brief assessment tools to aid in screening for and differentiating these conditions are needed. This study developed and validated a scale to identify misophonia and hyperacusis type sound sensitivity in college student (N=451) and community adult (N=375) samples. A ten-item assessment instrument, the DST-10, and its subscales the Loudness Sensitivity Scale (LSS) and Human Sounds Scale (HSS), was subjected to exploratory and confirmatory factor analysis and initial evidence for construct validity was demonstrated. Internal consistency of the DST-10 and LSS and HSS within the two different samples was also assessed and ranged from good (α=.72) to poor (α=.53). Sensitivity and specificity analyses revealed that the LSS and HSS show good negative predictive value (NPV) in ruling out hyperacusis (NPV=88%) and misophonia (NPV=91%), respectively. The DST-10 and its subscales, the LSS and HSS, appear best suited to be used as a screening tool in the general population to identify and rule out hyperacusis-type or misophonic-type sound sensitivity. In order to assess the clinical utility of this tool, it is recommended that future work apply this tool within a treatment-seeking clinical sample (e.g., tinnitus specialty clinic, community mental health clinic) in an effort to identify clinical cutoff scores or ranges that aid in identifying and potentially diagnosing individuals with misophonia or hyperacusis.

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DIETARY INFLAMMATORY SCORE IS ASSOCIATED WITH FLUID INTELLIGENCE, BUT NOT MEMORY OR PROCESSING SPEED, IN LOW ACTIVE OLDER ADULTS

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Background: Nutrition has been identified as a risk factor for cognitive decline as a function of anti and pro-inflammatory effects of dietary components. Diet patterns and better global cognitive function have been associated with a reduced risk of Alzheimer’s disease and dementia. However, few studies have evaluated the relationship between dietary patterns and specific domains of cognitive function using comprehensive measures of diet and cognition.

Methods: We examined the relationship between dietary inflammatory index (DII) and cognitive function in a group of community dwelling older adults prior to participation in a physical activity intervention trial (n=67). The inflammatory properties of an individual’s diet were assessed with a developed DII score using the nutrition analysis of 3-day food records. Cardiorespiratory fitness (CRF) was assessed with a maximal graded exercise test. Measures of fluid intelligence, perceptual speed, episodic memory and vocabulary were assessed. Hierarchical regression analyses controlling for age, gender, and education examined the independent contributions of CRF and DII to cognitive function.

Results: DII was a significant independent predictor of fluid intelligence performance, \( \Delta F_{1, 51} = 6.78, P = 0.012 \), indicating that a pro-inflammatory diet, as indicated by higher DII scores, was associated with lower fluid intelligence scores \( \beta = -.34, P = 0.012 \). DII did not significantly contribute to the variance in either speed of processing or memory performance.

Conclusions: A pro-inflammatory diet associated with lower fluid intelligence scores. There was no association between DII and memory, processing speed, or vocabulary. The exact mechanisms that underlie the connections between dietary patterns and risk of cognitive impairment are still unknown, but may be operate through the influence of dietary components on systemic and central inflammation. Furthermore, the negative impact of a pro-inflammatory diet on cognition may be domain specific.

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DOES USE OF SOCIAL NETWORKING SITES INFLUENCE YOUNG WOMEN’S BODY IMAGE AND EATING PATHOLOGY?: A LOOK AT RACIAL DIFFERENCES

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Research shows African American (AA) women experience less body dissatisfaction and eating pathology than European American (EA) women. One explanation for this difference is that AA women are able to reject Western beauty ideals presented in the media (television, magazines), but less is known about racial differences in social media use. A growing literature suggests maladaptive patterns of social networking site (SNS) use, such as excessive reassurance seeking (i.e., seeking feedback from others on SNS), are associated with unhealthy body-related cognitions and behaviors. However, it is unclear how these processes play out among different racial groups. The current study examined whether specific types of SNS use and reassurance seeking differed between AA and EA women, and if race moderated associations between reassurance seeking and body dissatisfaction and eating behaviors. Results confirm AA women experience lower body dissatisfaction (p=.01) and marginally less eating pathology (p=.08) than EA women. AA women use Facebook less frequently than EA women (p<.001), but there were no race differences in frequency of Instagram or Twitter use, or SNS reassurance seeking (p>.05). Higher SNS reassurance seeking (p<.001), but not frequency of SNS use (p>.05), was associated with increased body dissatisfaction and eating pathology. These associations were not moderated by race (p>.05), suggesting maladaptive SNS use has negative consequences for both AA and EA women. Given the widespread use of SNS by young women, reducing harmful SNS usage may be important for preventing and treating unhealthy body-related cognitions and behaviors. Future research should also consider culturally-relevant factors (e.g., social support, family values) that may differentially influence AA and EA women’s SNS use, and the subsequent impact on the development of unhealthy body image and disordered eating behaviors.

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PREDICTORS OF HEALTHY LIFE HABITS PRESCRIPTION BY MENTAL HEALTH PROFESSIONALS TREATING INDIVIDUALS WITH PSYCHOTIC DISORDERS

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Introduction. Individuals suffering from psychotic disorders (IPD), such as schizophrenia, have a higher mortality rate compared to the general population mostly due to their higher use of tobacco, and the fact they eat sweeter and fatter associated with a less active lifestyle. Even though IPD would need better more intensive support to develop healthy behaviours, they actually receive less support by health professionals than the general population. The literature showed an association between professional’s personal health behaviour and their prescription of health behaviour. However, no other study has examined the health promotion practice by health profession other than nurses in a psychiatric population.

Objective: To describe the prescription of healthy behaviors by health professionals working with IPD.

Methods: Cross-sectional study focusing on the prescription of three life habits (physical activity, healthy nutrition, and smoking reduction/cessation) among healthcare professionals working with IPD. Participants completed the Exercise in Mental Illness Questionnaire for Health professionals and its adaptation for nutrition and tobacco.

Results: About 100 participants (psychiatrist, nurses, social workers, occupational therapist, etc.), mean age: 40. Physical activity (PA) was the most prescribed behavior by more than half of the professionals, followed by nutrition and tobacco. About a third of nurses, and more than half of doctors were trained on smoking reduction/cessation but less than 5% of the other professions worked with IPD. Trained professionals were more likely to prescribe nutrition (p=0.006) and tobacco reduction/cessation (p=0.008). Then, for PA, this relationship was borderline between training (p = 0.061).

Discussion: Our preliminary results suggest that only a minority of health professionals are trained on healthy life habits prescription. If further analyses prove this influences the frequency of Healthy life habits prescription, health promotion training should be added to the training of all health professionals.

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PREDICTING BINGE EATING AMONG UNDERGRADUATE ATHLETES
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Undergraduate athletes report higher rates of disordered eating behavior than non-athletes. Research suggests that dietary restraint, eating disinhibition, and hunger are associated with greater risk for binge eating disorder in the general population. Few studies have explored whether these variables predict binge eating in undergraduate athletes. Additionally, although eating disorders are more prevalent among females in the general population, it is unknown whether gender differences in eating disorders exist among undergraduate athletes. The present study aims to examine (1) whether dietary restraint, eating disinhibition, and hunger predict binge eating in undergraduate athletes and (2) gender differences in predictors of binge eating among undergraduate athletes. Participants (n=79, M-Age=18.7, 46.3% female, 100% Division III athletes) completed the Binge Eating Scale and the Three Factor Eating Questionnaire. A multiple linear regression analysis was used to examine whether dietary restraint, eating disinhibition, and hunger predicted binge eating in undergraduate athletes. Separate multiple linear regression analyses were used to examine whether dietary restraint, eating disinhibition, and hunger predicted binge eating differently in female and male undergraduate athletes. Approximately 8.9% (n=7) of the sample reported clinically significant levels of binge eating. Disinhibition of eating (β=0.57) and female (β=0.63) undergraduate athletes signifi cantly predicted binge eating in undergraduate athletes. Disinhibition of eating significantly predicted binge eating among male (β=0.59, p<0.01) and female (β=0.63) undergraduate athletes. Dietary restraint and hunger did not significantly predict binge eating. Regardless of gender, disinhibition of eating positively influences binge eating. These results suggest little difference in the factors attributing to binge eating among male and female undergraduate athletes. Future research should examine personality and psychosocial factors that may explain the heightened susceptibility of the relationship between disinhibition of eating and binge eating among undergraduate athletes.

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**EFFECTS OF AEROBIC INTERVAL TRAINING AMONG OVERWEIGHT INDIVIDUALS WITH PSYCHOSIS – PRELIMINARY RESULTS**

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Background. People with severe mental illness are more likely to be affected by obesity, diabetes, and metabolic syndrome due to antipsychotic medication and lack of health behaviors. Physical activity (PA) is recommended to manage these comorbidities, since it has been demonstrated positive effects on anthropometric (waist circumference; weight, fat mass), social (social support, social participation) outcomes and sometimes on psychiatric symptoms. Nevertheless the most effective strategy to manage these comorbidities is yet not really known.

**Objective:** To measure the effects of a 6-month interval training (IT) program on metabolic, anthropometric and psychiatric/functional outcomes.

**Methods:** A randomized controlled trial comparing the effects of a bi-weekly 30 minutes supervised IT to a waiting list in overweight individuals with psychosis. Outcome measures were collected at baseline and every 3 months.

**Results:** 48 participants (of the 66 subjects target) (mean age: 31.42±7.41; mean BMI: 32.32±5.68 kg/m²) already completed the study (21 women, 27 men). 50.9% had schizophrenia spectrum disorder and 28.3% bipolar disorder with psychotic features. Effects of IT were significant on waist circumference (-3.08 cm, SE = 1.46; p = 0.04), diastolic blood pressure (-5.91 mmHg, SE = 2.87; p = 0.04), HDL cholesterol (0.14 g/l, SE = 0.06; p = 0.03), and social functioning (SOFAS) (5.84, SE = 2.33; p = 0.01). Bordeline effects were found on apoliprotein B (0.11 mg/dl, SE = 0.06; p = 0.07).

**Discussion:** These preliminary analyses show promising results on the feasibility and the effects of IT. Thus, it suggests that it would be possible to use IT in the management of the metabolic syndrome and possibly improve social functioning. Further studies are needed to understand if IT could prevent weight gain and metabolic syndrome if used before these comorbidities emerge in the treatment psychosis.

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**EFFECTS OF CYBERBULLYING ON PHYSICAL AND MENTAL HEALTH**

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An unfortunate byproduct of modern electronic communication technologies and especially social media is the emergence of cyberbullying. Once thought to be simply an extension of traditional bullying, more recent research now indicates that cyberbullying involves a unique set of triggering factors and mental health consequences. The purpose of this study was to investigate both the physical and mental health outcomes resulting from recent cyberbullying among university students. We successfully recruited 180 participants (mean age = 19.32; 51.7% female; 30% non-white) to take an online survey assessing a number of physical and mental health consequences related specifically to the experience of cyberbullying. Results showed a significant correlation between cyberbullying severity and depression ($r = .35$, $p < .001$) as well as anxiety ($r = .41$, $p < .001$), with higher levels of cyberbullying severity associated with increased levels of depressive and anxious symptoms. Results also showed a significant correlation between cyberbullying severity and report of physical health symptoms ($r = .20$, $p < .05$), with higher levels of cyberbullying severity associated with increased adverse physical health symptoms. These results demonstrate that cyberbullying is a significant problem affecting those in emerging adulthood (i.e., not just an adolescent phenomenon) and that further research into prevention and treatment services in this population is warranted.

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FACILITATING SOCIAL SUPPORT FOR LIFESTYLE CHANGE AMONG HIGH-RISK INDIVIDUALS WITH MENTAL ILLNESS

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Objective: Obesity is nearly twice as prevalent in people with serious mental illness, such as schizophrenia, major depression, or bipolar disorder, compared to people in the general population. A major challenge facing behavioral medicine is curbing the epidemic of obesity in high-risk groups who receive care in resource-constrained environments. Professional led lifestyle interventions are often resource intensive and time limited. Mobilizing long-term supports in a person’s natural environment may be necessary to achieve significant reductions in obesity among people with serious mental illness. The purpose of this pilot study was to evaluate an intervention designed to bolster social support for health behavior change from family and friends of individuals with serious mental illness enrolled in a lifestyle intervention.

Methods: Fifteen adults with serious mental illness enrolled in a lifestyle intervention (In SHAPE) at community mental health centers participated with a self-selected partner in a 12-week intervention (Fit Together) designed to facilitate initial and ongoing support for their fitness and weight loss goals. The Fit Together coach provided basic health promotion education and helped the pair identify support strategies for health behavior change. Participant-partner pairs received free gym memberships and activity tracking devices (Fitbit) to facilitate collaborative behavior change.

Results: The majority of participants reported that the program was useful, convenient, and helped them reach their goals. Approximately two-thirds (66%) of participants lost weight, including 27% achieving clinically significant weight loss. Participants reported significant increases in partner support for exercise and use of persuasive social support strategies.

Conclusions: The development of effective, scalable, and patient-centered approaches to health promotion targeting people with serious mental illness is a public health priority. Leveraging support for health behavior change from family and friends is a promising strategy for increasing the effectiveness and reach of lifestyle interventions targeting weight loss in high-risk groups.

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FACTORS ASSOCIATED WITH SIMILARITIES BETWEEN PATIENT AND OUT-OF-HOME SUPPORTER RATINGS OF THE PATIENT’S DEPRESSIVE SYMPTOMS

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Engaging caregivers from outside the home is a promising approach to improving self-care among patients with chronic conditions. We examined factors associated with patients’ depressive symptoms as reported by patients and their out-of-home supporters. We hypothesized that pairs with better relationship quality would have more similar assessments. We used data from a comparative effectiveness trial of male veterans with heart failure treated in VA outpatient clinics from 2009-2012. All patients identified a CarePartner (CP), someone living outside their home who could be involved with their self-care. At baseline, patients and CPs rated aspects of their relationship, their own health, and the patient’s health including depressive symptoms. The study included 201 pairs in which both the patient and CP rated the patient’s depressive symptoms using the CES-D 10. We calculated the difference between patients’ and CP’s scores and classified the differences as being similar if they were within 5 points of one another. We used unadjusted regression models to identify characteristics associated with similar scores, using p-value < 0.10 to indicate significance. 51% of patients were classified as having depressive symptoms (CES-D ≥ 10). The correlation between patients’ and CPs’ ratings of the patient’s depressive symptoms was 0.32, and 46% of CP scores were similar to the patient’s score (29% of CPs rated patient’s depressive symptoms higher and 25% of CPs rated them lower). Demographics were not associated with similar ratings, nor were the CP’s own depressive symptoms. CPs whose patients rated them as being easier to talk to about heart failure (p=0.07) and helping them identify barriers to self-care (p=0.07) or talk about medications (p=0.06) more frequently were more likely to rate the patient’s depressive symptoms similarly to the patient himself. These results suggest that out-of-home supporters’ reports of patients’ depressive symptoms are moderately concordant with patients’ own reports at the initiation of the caregiver role and that with more effective communication, out-of-home caregivers can be sensitized to patients’ symptom burden.

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Background: Lyme disease (LD) is the most commonly reported vector-borne disease in the US and is often misdiagnosed. Research suggests that socio-economic status may influence the distribution of LD. The Social Vulnerability Index (SVI) is a county-level measure of SES and vulnerability to environmental hazards but has not been applied to LD studies to date. Using SVI to better predict disease distribution may improve diagnostic awareness.

Purpose: To examine associations between SVI and LD incidence rates at the regional level in the US.

Methods: County-level data for LD and SVI were obtained from the CDC and University of South Carolina, respectively. Data were aggregated to census regional divisions for analysis using logarithmic OLS regression models and correlation coefficients with bootstrapping to account for uneven reporting of LD cases.

Results: LD incidence was greatest in the Northeastern and upper Midwestern regions of the US. The most socially vulnerable regions were located near the west coast. The results of the correlational and regression analyses showed that SVI was, on the whole, negatively related with LD incidence rates. Chow’s test revealed that the models were statistically different across regions, Critical $F(2, 3124) = 3.0$, Chow’s $F = 996.4$.

Discussion/Conclusion: SVI was shown to be a predictor of LD incidence, with lower vulnerability being a risk factor for LD. However, due to the low explained variability in the models, other variables may be important to consider. Future research should investigate variables such as the county tick population, deer population, climate, and total forested area in addition to SVI.

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RELIABILITY OF 24-HOUR DIETARY RECALLS AS A MEASURE OF DIET IN ETHNIC MINORITY YOUTH

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Although it is a common practice to estimate dietary intake using three random 24-hour dietary recalls, some studies have suggested up to nine may be necessary to reliably estimate usual intake in youth. Given the resulting increase in resources and participant burden, more research is needed to determine if this method is reliable, particularly in ethnic minority youth at greatest risk for obesity and other chronic diseases. This study estimated the reliability with which 24-hour dietary recalls measure energy, fat, fruit, and vegetable intake in ethnic minority youth and examined how reliability changes as a function of the number of recalls. Cross-sectional data were collected across three different studies from youth (n=496, 13.26±1.89 years old, 64% girls, 92% non-Hispanic Black, 31.34±7.82 body mass index) who completed random 24-hour dietary recalls (68% completed three) conducted by research assistants using the Automated Self-Administered 24-hour Recall system (n=298) or registered dietitians using the Nutrition Data System for Research (n=198). Estimates provided by multilevel models were used to calculate the proportion of variance accounted for between individuals and the reliability of means within individuals as a function of the number of recalls. Reliability estimates for assessing dietary outcomes using 1-3 recalls ranged from 12-62%. To achieve 80% reliability, the following number of recalls would need to be conducted: 8 for energy intake, 13 for fat intake, 21-30 for fruit intake, and 21-25 for vegetable intake. The common practice of assessing dietary intake with three recalls does so with low reliability in ethnic minority youth. Until objective dietary assessment methods are developed, researchers are encouraged to account for reliability when determining study power. More research is needed using existing modeling techniques that account for low reliability and to develop new methods for reliably estimating usual intake.

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THINKING OUTSIDE THE LAB: OVERCOMING OBSTACLES IN THE COLLECTION OF QUALITY ONLINE DATA

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For reasons related to health disparities, the study of group differences is now salient in medical research in the United States. To reach more diverse samples, a transition has been initiated from convenience samples to the internet. However, health researchers are at a critical juncture in evaluating data collected through these mediums. Amazon Mechanical Turk (MTurk) is an online crowdsourcing platform that serves as a potential solution for achieving researcher’s goals of obtaining quick and inexpensive data that has the potential to assist in health disparity research. However, only a few studies exist that examine the quality of data collected using this method, and these studies offer conflicting results. Therefore, the present study evaluated the utility of this platform for collecting health-relevant data. The survey was designed with ‘best practice’ guidelines in mind (e.g., survey was < 10 min., modest incentive). Our parameters restricted involvement to participants with a 95% approval rating over 1,000 HITs, and they were paid $0.75. Twenty-five “trap” questions were embedded within the survey. Participants were given 1 point for each failed trap opportunity. In addition, half of the participants were randomly assigned to receive an “alert”, which emphasized the importance of response conscientiousness. The online survey was administered to 316 participants (138 male, 176 female; M age = 37.67 years). Approximately 92% of the sample did not fail any trap, 7% failed 1 trap, and 1% failed 2 traps. Neither gender [F(1, 312) = 2.20, p > .05, η² = .007, power = .32] nor the alert predicted trap failure [F(1, 313) = .93, p > .05, η² = .003, power = .16]. While our alert failed to impact conscientiousness, the lack of effect may be due to the overwhelmingly high conscientiousness of the sample. Best practices applied to survey design likely contributed to the high quality of data. While we cannot address concerns about sample homogeneity given the absence of a comparative sample, the present data suggest some confidence in using an online sample for survey data collection – provided that the survey follows best practice guidelines. For medical researchers begin publishing data from online surveys it is essential for authors to routinely provide quality assurances in their data collection protocols, and report qualification standards of participants.

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A BRIEF, TABLET COMPUTER INTERVENTION FOR NUTRITION EDUCATION AMONG SMOKERS LIVING WITH HIV

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Maintaining optimal nutrition for people living with HIV (PLWH) is related to improved immune function, increased effectiveness of HAART therapy and improved quality of life. Data are reported from an RCT examining the efficacy of two brief, tablet-delivered interventions: a smoking cessation motivational intervention vs. a nutrition education comparison condition. The purpose of this study is to examine whether participants receiving the nutrition education intervention showed differentially greater increases in intention to and self-efficacy for maintaining a healthy diet (pre- to post-intervention) and in nutritional eating behavior (baseline to one-month follow-up).

Methods: A sample of 100 PLWH (n = 51 smoking group, n = 49 nutrition group) completed self-reported measures of their intention to and self-efficacy for maintaining a healthy diet and nutritional eating behaviors. Data were analyzed in SPSS using independent t-test, chi-square, and repeated measures ANOVA.

Results: On average, the nutrition group was significantly older than the smoking group (p = .028). There were no other significant differences in demographic variables between groups. Repeated measures ANOVA showed significant increases (pre- to post-intervention) in intention (F [1, 94] = 9.158, p = .003) and self-efficacy (F [1, 96] = 6.652, p = .011) scores for the entire sample. No changes in nutritional behavior scores were found (F [1, 93] = 2.833, p = .096). No significant study condition X time interactions for intention, self-efficacy, or nutritional behavior scores were found.

Conclusions: Nutrition education delivered by tablet computer did not differentially impact the targeted outcomes. Future research to develop effective nutrition interventions for PLWH is needed. Incorporating more personalized components such as motivational interviewing may improve outcomes. This type of intervention can be delivered by tablet computer, which would facilitate widespread utilization in the healthcare setting.

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AESTHETIC BUT NOT FUNCTIONAL BODY SATISFACTION IS ASSOCIATED WITH DIETING INTENTIONS IN ADULT WOMEN

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INTRODUCTION: Dieting intentions are well-established predictors of dieting behaviors. Occasional dieting can lead to pathological dieting behaviors such as binge eating. Dieting is also associated with clinical eating disorders. Examining predictors of dieting intentions is important given the large percentage of women that diet and the potential negative impacts of dieting. The current study sought to examine aesthetic and functional body satisfaction as predictors of dieting intentions in a diverse sample of adult women.

METHODS: Women (N=134) were recruited online via Amazon.com’s Mechanical Turk (MTurk) service. Participants completed questions as part of an online survey that included measures of demographic information, body satisfaction, and dieting intentions. Linear regression was used to examine associations between body satisfaction and dieting intentions. Covariates included race, BMI, and dieting restraint.

RESULTS: Higher levels of aesthetic body satisfaction were negatively associated with dieting intentions independent of all covariates. Women satisfied with the appearance of their body were less likely to endorse unhealthy dieting intentions (B = -417, SE = .202; p = .041). However, the same relationship was not present for functional body satisfaction; no significant differences were found with regards to dieting intentions.

DISCUSSION: Findings suggest satisfaction with aesthetic appearance predicts lower dieting intentions, but functional body satisfaction does not impact dieting intentions. Given the association between disordered eating behaviors and dieting, reducing dieting intentions to promote healthier relationships with food is a public health priority. As such, this study represents an important step in identifying a subtle, but significant difference in predictors of dieting intentions. Future research is needed to understand why aesthetic but not functional body satisfaction is related to stronger dieting intentions.

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ARE FAST FOOD AND SIT-DOWN RESTAURANT MEAL CONSUMPTION DIFFERENTIALLY ASSOCIATED WITH POOR DIETARY BEHAVIOR?

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Introduction: Among U.S. adults, consumption of fast food is more adversely associated with BMI and metabolic outcomes than consumption of sit-down restaurant food. It remains unclear whether differences in dietary behavior may explain the differential effects of fast food and sit-down restaurant food consumption. The present study evaluates whether associations of restaurant meal consumption with four poor dietary behaviors differ between patrons of fast food vs. sit-down restaurants.

Methods: We used baseline data from a nutrition intervention conducted in three worksites in the southern U.S. We collected demographic and dietary data with self-administered questionnaires. We used logistic regressions with random effects for worksite to evaluate associations between tertile of fast food and sit-down restaurant meal consumption with usual intake of processed meat, red meat, refined grain bread, and sweet baked goods and candy (N=387), controlling for age, gender, race, marital status and education.

Results: The sample was predominantly female (78%) and non-white (55%). Compared to the lowest tertile of fast food consumption, the highest tertile was associated with increased odds of usual intake of processed meat (OR = 2.86, p < 0.001), red meat (OR = 2.38, p < 0.01), and refined grain bread (OR = 2.37, p < 0.01). A race by fast food consumption interaction term was significant in the sweet baked goods and candy model (p = 0.04). Compared to those in the lowest tertile of fast food intake, the odds of usual sweets intake were higher for nonwhite fast food consumers (OR = 7.69, p < 0.001) but not white fast food consumers (OR = 1.76, p > 0.05) in the highest tertile. No associations between sit-down restaurant food consumption and poor dietary behaviors were found.

Conclusion: Our findings suggest that regular fast food consumption is associated with increased odds of poor dietary behaviors independent of sociodemographic characteristics. Further research is needed to understand the differential effects of prepared food source on obesity-related outcomes.

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C109a 6:00 PM-7:00 PM

EXPLORING SELF-REPORTED AND OBSERVED FEEDING PRACTICES OF RHODE ISLAND HEAD START TEACHERS

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Background: Although over 60% of children attend child care and consume up to 50-70% of their daily food intake, little is known about teacher feeding practices. In order to accurately capture feeding practices, objective, valid and reliable tools are important. The goal of this study was to compare self-reported to observed feeding practices of Head Start teachers.

Methods: 85 Rhode Island Head Start teachers were observed during meal times to code feeding behaviors using an adapted version of the Environmental Policy Assessment and Observation (EPAO) tool. Following the observation, teachers completed a self-report survey of their own feeding practices. We explored correlations (Spearman), between observed (4) and self-reported (10) items that were intended to measure the same feeding practice.

Results: Teachers were predominantly non-Hispanic White (89%) and female (98%). Observed talking about foods was significantly correlated with self-reported teaching the children about foods ($r = .25, p < 0.05$) and encouraging a wide variety of foods ($r = .26, p < 0.05$). Observed pleasant conversation was significantly inversely correlated with self-reported non-food bribes ($r = -.383, p < 0.001$) and use of food as a reward ($r = -.221, p < 0.05$).

Discussion: Only certain self-reported and observed feeding practices were related. Observed and self-report items that were significantly correlated related primarily to positive feeding practices, suggesting possible response bias. The literature relies primarily on self-report measures to capture feeding practices, yet there are inconsistencies between measures of self-report and observation. Future research should further understand these inconsistencies to capture feeding practices more accurately.

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C109b 6:00 PM-7:00 PM

FAMILY FACTORS ASSOCIATED WITH FRUIT AND VEGETABLE CONSUMPTION AMONG YOUNG CHILDREN

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Children consume substantially fewer fruits and vegetables (FV) than recommended. Many studies in Europe and U.S. have examined factors that influence intake in older children and adolescents. To date, home food environment variables (availability of and access to FV, and parent's FV intake) have emerged as consistent factors while demographics have varied by country. The purpose of this cross-sectional study was to explored factors of FV intake among young U.S. children (ages 4-10). Questionnaires were administered to parents and included factors based on prior research. Availability was comprised of 13 fruits and 18 vegetables (veg) present in the home in the past 7 d. Responses were on a 5-point Likert scale (0 = never to 4 = always). Children's access to FV was assessed with 1 question using the same Likert scale. A liking score was calculated by asking parents to indicate if their child liked, disliked or never tried a list of 12 fruits and 18 veg. Parent's and child's fruit and veg intake were assessed with Block food frequency questionnaires. Separate linear regression models were run for child's fruit and veg intake and were adjusted for demographic variables (children's age, gender; parents' race, income, education, marital status). The parent sample (n=140) was 50% < 40K, 43% white, 51% married, and 51% < college educated. Results of the fruit model explained 23% (adjusted $r^2$, $p=.001$). Together demographic factors accounted for 5% of the variance ($p=.04$) while additional variance was explained by parent's fruit intake (8%, $p=.001$), fruit availability (8%, $p=.001$) and child's liking of fruit (2%, $p=.04$). Results of veg model explained 26% of the variance in child's veg intake ($p=.01$). Demographics were not significant ($p=.17$). Parent's veg intake explained 16% ($p=.001$) and child's liking of veg explained 6% ($p=.001$) of the variance. The results support previous studies' findings about the important influence of parent's FV intake. Parent's veg intake seems to be especially influential on child's veg intake, perhaps stronger than for fruit. Similar to previous studies, demographics did not have a strong influence in this US sample. These results suggest a need for health promotion interventions for all subgroups that target parent's intake.

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C111a 6:00 PM-7:00 PM

FAMILY CHILD CARE HOME PROVIDERS’ HEALTH BEHAVIORS
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Background: There has been increased attention to obesity prevention in the early child care setting. While most efforts focus on child behaviors, providers’ health risk behaviors warrant greater attention to help ensure they can be healthy role models for the children in their care. We describe the socio-demographic and health risk behavior profile of family child care home (FCCH) providers (who care for children out of their own homes) participating in an ongoing study.

Methods: We used baseline data (n=166 FCCH) from an ongoing cluster-randomized controlled intervention. Providers reported on their socio-demographics, physical activity behaviors, average number of hours of sleep per night and a perceived stress. A risk score (range: 0-6; 0 no risk to 6 high risk) was calculated as the sum of the following: being overweight/obese (BMI>25.0), insufficient moderate-to-vigorous physical activity (MVPA< 150 min/wk), insufficient strength training (ST20, range from 10-50 on the perceived stress scale), and no health insurance.

Results: All providers were female. The majority were African-American (74%), and had completed an Associate’s degree or less (74%). One quarter had annual household incomes < $25,000/year. Almost all providers were overweight/obese (90%), over half did not meet recommendations for MVPA (78%) or strength training (59%), 43% slept < 7hrs/night, 62% had a high stress score, and 29% lacked health insurance. The average risk score was 3.6±1.2, with close to one quarter of the providers having a score of 5 (20.1%) or 6 (3.1%).

Discussion: Our results suggest that FCCH providers are a vulnerable population at high risk for developing chronic diseases. Future studies should intervene with these providers to reduce their risk profile not only for the welfare of the providers but also, in turn, to enable them to be better role models for the children in their care.

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C113a 6:00 PM-7:00 PM

A NOVEL APPROACH TO THE TREATMENT OF OBESITY: THE UTILIZATION OF A BIO-PSYCHO-SOCIAL METHOD
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More than one-third of adults and nearly 17% of youth were obese in 2011–2013. Overweight and obesity-related conditions affect an estimated 97 million Americans and are the leading causes of preventable death in the United States. The estimated annual medical cost of obesity in the U.S. was $147 billion in 2008; the medical costs for people who are obese were $1,429 higher than for normal weight people.

Numerous randomized trials comparing different diets (e.g., low carbohydrates, low fat) have shown minimal differences in weight loss (mean difference of < 1kg) and metabolic risk factors. Adherence was most strongly associated with weight loss in 4 meta-analyses of diet comparison studies summarizing 13 to 24 clinical trials.

The importance of biological, behavioral, and environmental factors influencing adherence to lifestyle changes has been previously described. To demonstrate the efficacy of a bio-psycho-social approach to weight loss, a retrospective review of patients completing a weight loss program was performed.

Methods: A retrospective review of charts of patients ages 18-75, enrolled in a weight loss program at an outpatient clinic. Inclusion- Minimum of 56 days on program. Exclusion- More than 140 days on program. Weight loss program was constructed using biological, psychological and behavioral interventions.

Discussion: Most weight loss programs focus on diets, weight loss medications, cognitive behavioral therapy, or behavioral modification programs. To our knowledge, this is the first program that integrates biological, psychological and behavioral interventions in an outpatient setting. The results show the potential efficacy of an outpatient-based program for weight loss using a bio-psycho-social intervention. 0.8% reduction in weight and BMI over 86 days of treatment (p < 0.001). The study demonstrates that medication, cognitive behavioral therapy, and behavioral modification in short 10-15 minute monthly visits can lead to significant weight loss.

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C119a 6:00 PM-7:00 PM
BUILDING A HEALTHY TEMPLE: A SUMMER OBESITY PREVENTION PROGRAM FOR HISPANIC KIDS AND FAMILIES THROUGH VACATION BIBLE SCHOOL
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Introduction: Building a Healthy Temple (BHT) Vacation Bible School (VBS) Program aimed to promote healthy lifestyle for children and their families through the integration of spiritual and physical health promotion.
Methods: The BHT VBS is a week long, multipronged intervention including health-oriented scripture readings, hands-on healthy eating and physical activities as well as parental health education. Using Train-the-Trainer model, the program was implemented in three predominantly Hispanic churches in San Antonio, Texas in 2015. A pre- and post- one-group design was used to evaluate intervention effect through self-administered questionnaires at baseline and one week post-intervention. Outcome measures included children’s awareness of the faith-health connection, self-efficacy on healthy eating, food preference, eating patterns and physical activity (PA) level. Parental knowledge and attitude toward healthy living, as well as eating and PA patterns were measured. Paired t-test was performed to compare pre and post changes in intervention outcomes.
Results: BHT VBS reached 315 children and families in San Antonio’s low-income neighborhoods. One hundred and fourteen children participated in program evaluation, with 53 children and 25 parents completed both baseline and endpoint questionnaires. Children significantly increased awareness scores of the faith-health connection, self-efficacy scores on eating whole grains, favorably changed preference on fruits and whole grains, as well as increased consumption of fruits, vegetables and water. Parents significantly increased their nutrition knowledge scores, increased fruit and vegetables intake, as well as reduced sugary drink consumption. Both children and parents significantly increased their weekly PA level while they decreased daily screen time.
Conclusion: Although brief, the BHT VBS resulted in favorable lifestyle changes in both children and parents, which will lead to adoption of a healthier lifestyles for Hispanic families within faith communities.
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C125a 6:00 PM-7:00 PM
DIFFERENTIAL WEIGHT TRAJECTORIES AND NEAR-TERM MORTALITY FOLLOWING DEPRESSION ONSET IN AGING ADULTS
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The effects of latent psychological constructs on concrete, physiological outcomes are widely viewed as extant, but not yet well understood. The present study aims to investigate weight-related responses to depressive symptom onset, how those responses may alter the course of body mass index (BMI) trajectories across time, and trajectory specific predictors and distal outcomes. In this project, we use latent class growth mixture modeling to identify unique BMI symptom trajectories following the onset of clinically significant depressive symptomatology in a population based sample (N = 1778) of retirement-aged adults across six years. While the BMIs of the majority of participants did not significantly increase after depression onset (91.2%), others experienced substantial BMI increase across time (class mean BMI increase from 38.4 to 42.5). Combinations of baseline psychosocial and demographic characteristics were investigated to determine if unique latent class trajectory memberships could be predicted based on pre-onset characteristics. Iterative analyses revealed that the presence of major medical conditions, age, non-household wealth, and current cigarette smoking status could be used to predict class membership. Furthermore, a post-hoc logistic regression suggests that class assignment may predict distal near-term mortality in this sample (p = .013), indicating that longitudinal BMI trajectories following depression onset may influence mortality within a discrete time window.
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C125b 6:00 PM-7:00 PM

DISCRIMINATION AMONG BLACK WOMEN: AN EXAMINATION OF HEALTH LOCUS OF CONTROL AS A MODERATOR OF MALADAPTIVE EATING BEHAVIORS

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Many factors may contribute to the higher prevalence of overweight and obesity for Black women. For instance, associations between discrimination and health behaviors have been identified. Stress as a result of racial and gender discrimination may lead to changes in health behaviors such as maladaptive eating habits as a coping response and may ultimately influence Black women’s health. In addition, major substantive questions remain about the conditions that moderate the effects of discrimination on health behaviors among Black women. For example, health locus of control (HLOC) may contribute to racial disparities in physical health among Black women as social and economic constraints and/or negative environmental messages likely influence one’s sense of control (Shaw & Krause, 2001). Thus, this study examined two questions: (a) Is there a relationship between discrimination and dietary behavior (e.g., low-fat eating and snacking on sweets)? and (b) Is the relationship between discrimination and dietary behaviors moderated by HLOC orientation? Two hundred and twenty-seven participants (median age = 31-35) were recruited. Correlations and multiple regressions were used to test the study hypotheses. Bivariate correlations revealed that internal HLOC (IHLOC) was positively associated with low-fat eating; external HLOC (EHLOC) was positively associated with snacking on sweets; and racial discrimination was positively associated with snacking on sweets. Multiple regression results indicated that the effect of IHLOC on snacking on sweets depended on the level of racial and gender discrimination. Likewise, the effect of EHLOC on snacking on sweets depended on the level of racial discrimination. Perhaps, the most significant implications of this study can be towards preventative and remedial work.

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C126a 6:00 PM-7:00 PM

EATING BEHAVIOR AND WEIGHT CHANGE: AN EHEALTH TRIAL AMONG WOMEN IN THE PRIMARY CARE SETTING

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BACKGROUND: Maladaptive eating behavior has been linked to poor success in weight management trials. This study aimed to examine changes in eating behavior following a weight gain prevention intervention.

METHODS: The 2-arm Shape Program trial was conducted in the primary care setting among black women who were overweight or obese (BMI 25.0-34.9 kg/m²). Intervention participants received a 12-month program consisting of monthly coaching calls with dietitians, and behavioral goals that were self-monitored each week via Interactive Voice Response (IVR). We assessed subjective eating behavior at baseline and 12-months using the 18-item Three-Factor Eating Questionnaire (TFEQ-R18). This measure consists of three sub-scales: cognitive restraint, uncontrolled eating, and emotional eating.

RESULTS: Eating behavior did not differ between treatment arms at baseline. At 12 months, cognitive restraint was higher in the intervention arm than in the usual care arm (58.8±19.1 vs. 45.7±19.0, respectively; \( p < .0001 \)), while uncontrolled eating was lower (21.5±16.2 vs. 26.9±19.9; \( p = .048 \)). Emotional eating scores at 12 months did not differ between treatment arms. Among intervention participants, cognitive restraint increased 47% over the 12-month period, while uncontrolled eating decreased 38%, and emotional eating decreased 39% (all sub-scales \( p < .0001 \)).

Cognitive restraint at 12 months was positively correlated with coaching call completion rate (\( r = 0.28 \), \( p = .008 \)), and was higher among those who completed at least 80% of IVR calls (63.2 ± 18.6) than those who did not (53.3 ± 18.5). Among all participants, weight change from baseline to 12 months was associated with eating behavior at 12 months (all sub-scales: \( r = 0.22-0.23 \), \( p < .05 \)); a similar pattern was observed among intervention participants, though not statistically significant.

CONCLUSIONS. Eating behavior improved over time among intervention participants. Individuals who had higher rates of intervention engagement demonstrated a healthier pattern of eating. The association between eating behavior and weight outcomes was attenuated for intervention participants, perhaps due to eating behavior being just one of many constructs that impacted weight change.

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C126b 6:00 PM-7:00 PM

EATING BEHAVIOR PATTERNS OF MALE AND FEMALE COLLEGE STUDENTS RESIDING ON AND OFF CAMPUS

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Background: College students gain weight at a higher rate than the general population. Campus represents a unique eating environment, and living on or off campus may present additional challenges in maintaining healthy eating patterns. Students living on campus have been found to differ in their meal, snack and beverage intake relative to those residing off-campus. Gender differences in meal frequency and dietary composition in college students have also been observed.

Aim: This study aimed to examine eating behavior patterns of college students based on their living arrangement on or off campus and gender.

Method: Participants were 178 college students ages 18-24 (53% White, 72% female, and 60% living on campus). To access eating behavior patterns, four behavior-oriented subscales of the validated Eating Behavior Patterns Questionnaire were used: Low-fat eating, snacking on sweets, haphazard meal planning, and meal skipping.

Results: A 2 (Campus Living status) X 2 (Gender) MANOVA analysis revealed main effects for both living status [F(4) = 2.86, p = .025; Wilks’ Λ = .94] and gender [F(4) = 8.46, p < .001; Wilks’ Λ = .84], but no interaction. Univariate comparisons indicated that students living on and off campus differed in snacking on sweets [F(1) = 7.60, p = .006; on campus higher]. Significant gender differences in low-fat eating pattern [F(1) = 21.98, p < .001; females higher] and in haphazard planning [F(1) = 6.75, p = .01; males higher] were observed. Results remained significant after Bonferroni adjustments.

Conclusion: On-campus students’ greater sweets intake patterns implicate easy access to onsite vending machines and food stands with poor food options as environmental dietary risk factors. Female students’ higher rates of low-fat eating and lower haphazard meal planning could be explained by adherence to diets that dictate fat intake and meal schedule. Eating patterns adapted in college have lasting consequences for young adult health, and understanding factors that may influence students’ eating behaviors has important policy implications.

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C127a 6:00 PM-7:00 PM

EFFECTS OF TREATMENT DOSE ON CHANGES IN PHYSICAL ACTIVITY IN LIFESTYLE INTERVENTIONS FOR WEIGHT LOSS

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Physical activity (PA) represents an important part of behavioral weight-loss treatment, but little is known about the effect of treatment dose on PA improvements. Previous findings from the Rural LITE Trial indicated that moderate (MOD: 16 sessions) and high (HIGH: 24 sessions) doses of a behavioral weight-loss intervention produced significantly larger weight losses than low dose (LOW: 8 sessions) treatment or an education control (CONTROL: 8 sessions) at 6 months. In the current study, we examined the effect of dose on changes in PA and fitness over the 6-month initial intervention phase. Participants were 612 obese adults (78.3% women; M±SD: baseline BMI = 36.3 kg/m² ± 4.0, age = 52.3 years ± 11.5, baseline moderate and vigorous PA = 57.0 min/day ± 74.6) who completed the treatment program. Intervention content was the same for HIGH, MOD, and LOW conditions, but number of sessions differed. The International Physical Activity Questionnaire and the 400-Meter Walk Test (a measure of physical fitness) were administered at baseline and 6-months. Data were analyzed using two 4 (condition) x 2 (time) repeated measures ANCOVAs. HIGH and MOD doses demonstrated mean PA increases of 53.4 min/day ± 69.1 and 43.3 ± 87.7, respectively, which were significantly greater than CONTROL (30.2 ± 64.5; ps < .01). On the 400-Meter Walk Test, HIGH dose improved by an average of 28.8 seconds ± 47.7, which was significantly better than LOW dose (20.5 ± 48.9, p < .05). The difference between fitness improvements in HIGH and CONTROL (21.0 ± 49.7) was marginally significant (p = .056). Collectively, these findings suggest that moderate or high doses of behavioral treatment should be employed to maximize improvements in PA, but high doses may be needed to improve fitness.

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ETHNIC DIFFERENCES IN PARENTAL FEEDING BEHAVIORS IN A SOCIO-ECONOMICALLY DIVERSE UK SAMPLE OF PRESCHOOLERS AND THEIR MOTHERS

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Objective: Ethnic groups in the UK differ in childhood obesity rates. One possible source of this disparity is differences in parental feeding behavior, which could relate to differences in weight-related attitudes. In this study we investigated differences in feeding practices between three ethnic groups within the UK, alongside differences in perceptions and concerns relating to child weight.

Methods: 328 White British parents, 78 South Asian parents, and 50 Black Afro-Caribbean parents of 3-5 year-old children in London completed questionnaires assessing parental feeding behaviors, and perceptions and concerns relating to child weight. Child BMI z-scores were determined from measured height and weight.

Results: Black Afro-Caribbean children had the highest BMI z-scores while South Asian children had the lowest. Univariate ANOVAs demonstrated that Black Afro-Caribbean and South Asian parents reported greater Pressure to Eat than White British parents. Black Afro-Caribbean parents reported lesser use of Monitoring, but more Instrumental Feeding, compared to White British parents. South Asian parents reported more Emotional Feeding than White British parents. Black Afro-Caribbean parents reported the highest concern about their child being underweight but also significantly more concern about their child being overweight.

Conclusions: In this UK study, we observed significant differences in parental feeding behaviors and concerns about child weight between three different ethnic groups, which could potentially contribute to ethnic variation in child obesity rates. Our findings suggest that cultural diversity should be considered when investigating the impact of parent feeding on child obesity, and when designing obesity interventions.

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DIFFERENCES IN PATIENT PERSPECTIVES ON DISCHARGE PLANNING NEEDS AMONG FOUR MONTANA FRONTIER COUNTIES

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Rural residents, particularly those with multiple chronic health conditions, experience significant health disparities compared to urban counterparts. Because rural residents requiring hospitalization or specialty treatment must often travel long distances to access care they experience unique barriers to follow-up treatment and recovery. Reorganization of discharge planning for rural patients returning to their home communities following inpatient care at regional referral hospitals represents an intervention target for reducing rural health disparities. However, very little research in rural discharge planning exists.

The PCORI-funded Rural Options at Discharge Model of Active Planning Project (ROADMAP) aims to reduce rural re-hospitalization and mortality by reorienting rural discharge planning practices to address the unique needs of rural patients and healthcare systems. ROADMAP conducted a community needs assessment examining experiences and perspectives of rural inpatients discharged from an out-of-town regional referral hospital to one of 4 frontier counties in Montana (n=904). The assessment utilized a concerns report methodology, which incorporated input from rural patient populations throughout the assessment process.

Results indicated that rural patients receive many evidence-based discharge-planning practices. Few significant differences in perceived discharge planning strengths were reported by residents among participating counties. However, patients identified several problems with the discharge planning process that differed significantly between counties. Differences included problems navigating the healthcare system, access to follow-up care, and being treated with respect by care providers. Identified strengths and problems in the discharge planning process may be explained by county-level differences in healthcare service availability and quality, geographic distance from the regional referral hospital, and relative proportion of residents using Indian Health Services.

Assessment findings reflect a diversity of unique health care needs across a broad rural environment. Results may inform future intervention efforts that can be tailored to protect identified community-level strengths and to address unique problems.

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DOES SELF-REPORTED SOCIAL COMPARISON ORIENTATION PREDICT BEHAVIORAL ENGAGEMENT IN HEALTH-RELATED COMPARISON ACTIVITY?

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Comparing one’s appearance to the appearance of others (i.e., appearance comparisons) shows negative effects for college women. Specifically, upward appearance comparisons (i.e., comparing with others thought to be more attractive) are strongly associated with body dissatisfaction and disordered eating. At present, however, little is known about the validity of self-report measures of comparisons for predicting comparison behavior. This study assessed the relationship between college women’s perceptions of their comparison behavior (assessed using the Iowa Netherlands Comparison Orientation Measure [INCOM] and an appearance-specific version) and examples of comparisons in their writing. College women (n=111) took both versions of the INCOM and completed three 15-minute writing sessions over two weeks. Participants were randomly assigned to write about their deepest thoughts and feelings related to body image and eating behavior (experimental; n=57) or their daily activities (control; n=54). Writing samples for the first session were submitted to the Linguistic Inquiry and Word Count (LIWC) program to quantify word use. These writing samples also were coded for examples of appearance comparisons by trained research assistants (85% initial agreement) and discrepancies were resolved through discussion. Only ten control participants (19%) showed evidence of social comparisons in their writing, whereas 36 experimental participants made comparisons (63%; \( \chi^2 = 9.97, p = 0.001 \)). Across both groups, neither version of the INCOM was associated with the use of social or body-related words (ps>0.20). Yet participants who scored higher on the appearance-specific INCOM were more than twice as likely to make appearance comparisons in their writing, particularly upward comparisons (\( \chi^2 = 6.40, p = 0.01 \); OR 2.12, 95% CI 1.18, 3.78). The original INCOM did not differentiate participants who did and did not make comparisons in their writing, however (ps>0.70). These findings show that an appearance-specific version of the INCOM is associated with behavioral engagement in comparison activity, and thus, provide evidence that this version is valid for assessing appearance comparison tendencies among college women.

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EFFECTS OF INTENSIVE DIET AND EXERCISE ON SELF-EFFICACY IN OVERWEIGHT AND OBESE ADULTS WITH KNEE OSTEOARTHRITIS

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Physical activity decreases the risk of arthritis-related disability; however, pain and lack of confidence are often cited barriers to physical activity participation among older adults with knee osteoarthritis (OA). The purpose of this study was to examine differences in self-efficacy over the course of the Intensive Diet and Exercise for Arthritis (IDEA) trial. IDEA was a single-blind, randomized controlled trial with 454 overweight and obese older adults (M age=65.6 years) with radiographic evidence of knee OA and knee pain on most days of the week. Participants were randomized to one of three interventions: exercise-only (E-only); intensive dietary weight loss-only (D-only); or both (D+E). Self-efficacy for gait, balance, walking duration and exercise adherence was assessed at baseline, 6 and 18 months. Baseline associations were tested using Pearson correlations, and group least squares means were compared using mixed linear models at 6 and 18 months, adjusted for multiple comparisons. At baseline, participants with higher self-efficacy reported significantly better function and less pain (WOMAC), walked farther on the six-minute walk, and were more physically active (all \(|r| > 0.12\), all \(p < .01\)). At 18 months significant differences between groups were detected for all self-efficacy measurements, such that the D+E group was significantly (all \(p < .005\)) higher than either D or E groups alone for gait efficacy, walking duration efficacy, and balance. D+E was significantly greater in exercise adherence efficacy when compared to D-only, but not E-only. Treatments for knee OA should include both intensive dietary weight loss and exercise to have the greatest impact on self-efficacy.

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C136a 6:00 PM-7:00 PM

EVENING CORTISOL, DEPRESSION AND INFLAMMATORY CYTOKINES IN CFS/ME: A STRUCTURAL MODEL

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Introduction: Chronic fatigue syndrome/myalgic encephalomyelitis (CFS/ME) is a complicated illness that is characterized by diverse somatic symptoms and immune dysfunction, and is commonly comorbid with depression. As such, a psychoneuroendocrinological model of inflammation should be examined in this patient population in order to uncover underlying biopsychosocial mechanisms and tailor interventions aimed at improving CFS/ME symptomology.

Methods: Baseline data were drawn from diagnosed CFS/ME patients (N = 242, 84.6% female, mean age= 49.4 years) participating in studies testing the efficacy of cognitive behavioral stress management (CBSM) intervention. Questionnaires, salivary cortisol, and blood sera were used for structural equation modeling analyses using M plus.

Results: A structural regression model supporting a psychoneuroendocrinological model of immune dysregulation in CFS/ME fit the data χ²(12)= 17.725, p=0.1243, RMSEA= 0.043. Evening cortisol predicted increased depression (β=0.215, p < 0.05), which predicted higher pro-inflammatory IL-2, IL-6, and TNF-α levels (β=0.185, p < 0.05).

Discussion: Results highlight the importance of psychoneuroendocrine processes associated with markers of inflammation in this population. Given prior work showing that these inflammatory markers are elevated in CFS/ME patients vs controls, these findings suggest that interventions shown previously to modulate evening cortisol and depressive symptoms (e.g. CBSM) may similarly influence inflammatory regulation and symptomology in this poorly understood chronic illness.

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C136b 6:00 PM-7:00 PM

GETTING TO GOALS: UNDERSTANDING THE NATURE AND ACHIEVEMENT OF HEALTH-RELATED GOALS IN COACHING

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BACKGROUND: To combat the prevalence of lifestyle-driven chronic conditions, health coaching has become a key intervention, helping people set and achieve goals such as losing weight and quitting tobacco. This study examined patterns of goal-setting and achievement in coaching.

METHOD: This was a retrospective analysis of 22,903 employees enrolled in employer-sponsored coaching programs between 2012-2015. Descriptive statistics were generated and significance tests conducted to test gender and age differences on goal set/completion rates. Goal intention was derived from text responses for people coached in 5 areas (weight, nutrition, fitness, tobacco, stress). Initial clusters were generated algorithmically after removing stop-words, repeated/sparse terms, and normalizing punctuation, and then refined manually.

RESULTS: Trends in gender/age were found. The majority of participants were women (71%). Women more frequently set lifestyle-related goals (weight, stress, p < .0001); men more often set goals to manage conditions and quit tobacco (p < .0001). People 30-50 years were more likely to set tobacco and fitness goals; goals set more often among those 51+ included back care, nutrition, and stress (p < .0001). Men and women both completed 46% of initial goals (p = NS); goal completion rates increased with age (p < .0001).

Text analysis of initial goals in primary areas found meaningful clusters: Weight (lose 84%, maintain 9%, improve nutrition/fitness 2%); Tobacco (quit 45%, decrease 24%; maintain quit status 23%, obtain medication 5%); Stress (reduce 78%, manage 11%, specific strategies 11%); Fitness (general increase/ improve 68%, specific focus 19%, maintain 6%); Nutrition (general 52%, food-type focus 16%, nutrient-type focus 6%, portion focus 5%, manage condition 3%, lose weight 3%, food education 3%).

DISCUSSION: Goal setting is an important component of health coaching. Results suggest there are gender and age differences in goal setting and achievement. Additional work is needed to understand the impact of these variations on health and well-being outcomes.

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C136d 6:00 PM-7:00 PM

FLU VACCINATION BEHAVIORS AND PERCEPTIONS AMONG UNIVERSITY FRESHMEN DURING A NON-PANDEMIC FLU SEASON

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Objective: Examine flu vaccination behavior and perceptions among college freshmen during a non-pandemic influenza season using Health Belief Model constructs of perceived benefits, threats, barriers, and cues to action.

Methods: Cross-sectional study using mixed mode (paper/online) self-report surveys administered Oct-Nov 2015 to evaluate vaccination behavior and intention using binomial logistic regression (p < .05, 2-tailed hypothesis test).

Results: 34% of participants received the flu vaccine by mid-November. Of those who had not received the vaccine, 1/3 planned to do so, 1/3 did not plan to do so, and 1/3 were undecided. Odds of being vaccinated were higher for students who perceived greater benefits (OR 1.21; 95% CI 1.01, 1.45) and who had received the flu vaccine within the past two years (OR 6.24; 95% CI 2.21, 17.64). Perceived vaccine benefits, availability, and family member plans to vaccinate were significantly associated with intention to vaccinate (p < .01). Perceived barriers to vaccination were identified as significant in univariate analysis (OR 0.87; 95% CI 0.80, 0.95), but not in the full model (OR 1.08; 95% CI 0.95, 1.23), indicating possible effect modification.

Conclusions: Perceived benefits and vaccination history can impact future vaccination decisions in college freshmen. Among unvaccinated students, benefits, availability and family reference behavior were significantly associated with intent to vaccinate. These factors could guide future university health practices and better influence students towards preventative health behaviors.

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ILLNESS PERCEPTIONS AND QUALITY OF LIFE IN EPILEPSY: TAKING SEIZURES INTO ACCOUNT

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Illness perceptions have been associated with quality of life (QOL) across health conditions but are rarely studied in people with epilepsy. This study examined the link between illness perceptions and QOL in epilepsy, with and without taking seizure severity and frequency into account. We hypothesized that we would replicate findings that illness perceptions are linked with QOL, and explored if seizure severity and frequency account for a portion of the association between illness perceptions and QOL.

Adults with epilepsy (N = 142, age: M = 39) completed the QOL in Epilepsy Scale, the Brief Illness Perception Questionnaire, the Seizure Severity Questionnaire, and self-reported seizure frequency. Illness perception was measured using eight constructs: Consequences, timeline, personal control, treatment control, identity, concern, illness comprehensibility, and emotions. This study tested the association between each construct and QOL, first without any control variables, next adjusting only for seizure severity and, separately, only for seizure frequency, and finally in a model using both seizure severity and frequency.

Consequences were associated with QOL across all analyses with a large effect size (unadjusted and adjusted rs from .50 - .66, all ps < .05). Timeline showed no association with QOL across all analyses. Personal Control showed a moderate association with QOL across all analyses (unadjusted and adjusted rs = .24 -.45, all ps < .05). Treatment control, identity, concern, illness comprehensibility, and emotions had moderate associations with QOL (unadjusted rs = .23 -.50, all ps < .05) that became weaker adjusting for seizure severity and frequency (adjusted rs = .18 -.32). Illness comprehensibility showed a small association with QOL, unadjusted or adjusted (unadjusted and adjusted rs = .17 -.20).

Some illness perception constructs were closely related to QOL while others were not. Consequences and personal control showed moderate-to-large associations with QOL that were robust to adjusting for seizure severity and frequency. Illness perceptions may be a promising starting point for developing interventions to improve QOL in epilepsy. Prioritizing key illness perceptions and considering the influence of seizure severity and frequency may facilitate improved QOL.

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INFORMATION SHARED ON YOUTUBE BY INDIVIDUALS AFFECTED BY LONG QT SYNDROME: A QUALITATIVE STUDY

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Objectives: Little is known about the role of social media and YouTube, in people coping with serious medical diagnoses (Bane et al., 2005). Long QT Syndrome (LQTS) is an inherited cardiac condition affecting 1:2500 people that predisposes them to life threatening arrhythmias, and is often diagnosed in childhood. Few studies address the psychosocial impact of LQTS (Lane et al., 2009), though dietary, physical, and social restrictions are required (Chattha & Zeleniiz, 2011), and lifelong medication and implantable devices may be needed. This study investigates what individuals share with others about LQTS via YouTube. Information may help professionals effectively use or moderate the effects of social media for patients, and identify areas for intervention for those with LQTS.

Methods: Inclusion: YouTube videos from 2008 to 2013; individuals in videos have personal experience with LQTS. Exclusion: Videos without verbal or written narratives were excluded.

Procedure: Of 1790 videos in a “long qt syndrome” YouTube search, 35 met inclusion criteria. Excluded videos were professionally filmed hospital testimonials, medical lectures, and videographies. LQTS patients in the included videos represent ages across the lifespan. Qualitative analysis was used to interpret the videos. Three coders used open and axial coding to determine key themes in data and achieve saturation. Grounded theory was used to explain results in a theoretical and evidence-based context.

Results: Findings revealed individuals’ thoughts, feelings, and behaviors about biopsychosocial aspects of LQTS. Themes include experiences with initial diagnosis, survival stories, treatment, misdiagnoses, and mistreatment.

Conclusions: YouTube offers cost-effective means to learn about patient populations’ psychological needs, experiences, and useful sources of information. Specific to LQTS, YouTube may provide an understanding of informal information communicated among patients and families that may impact questions asked of their physicians and psychosocial aspects of the condition.

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MEDICATION-TAKING BEHAVIORS IN CKD AND MULTIPLE CHRONIC CONDITIONS: A META-ETHNOGRAPHIC SYNTHESIS OF QUALITATIVE STUDIES

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Background: To inform medication adherence interventions, information is needed to clarify the nature of the relationships between behaviors that support medication-taking and medication adherence.

Study Design: This meta-ethnographic study identified behaviors associated with taking medications and medication adherence reported in qualitative studies. Qualitative studies included adults with chronic kidney disease (CKD) and co-existing multiple chronic conditions (MCCs).

Search Strategy: CINAHL Complete, MEDLINE and PsycINFO databases were searched. Five qualitative studies of adults with CKD stages 1-4 and MCCs who were managing medications met the inclusion criteria. Medication-taking behaviors were abstracted from study findings.

Analytical Approach: A meta-ethnographic synthesis with reciprocal translation was used to integrate medication-taking behaviors across studies.

Results: There were twenty categories of medication-taking behaviors occurring in three main contexts: 1) patient-provider clinical encounters, 2) pharmacy encounters and 3) day-to-day management. Behaviors were carried out in patients’ daily lives and involved interactions with family members, healthcare providers, and the healthcare system. Healthcare insurance, regulation and pharmaceutical availability added to the complexity of medication taking. These behaviors and contexts were synthesized into a new framework named Medication-taking Across the Care Continuum with Adherence-related Outcomes (MACO). Synthesis is limited to the five studies reviewed; findings and the MACO framework should be further validated. Specialty pharmacies and electronic orders were not specifically mentioned across studies, therefore the MACO framework is based on locally based pharmacies and traditional handwritten prescription writing practices, which requires the patient physically deliver a prescription order to the pharmacy. Conclusions: The synthesis was summarized within the MACO framework which can be used to better understand specific medication-taking behaviors associated with medication adherence in the contexts in which they occur. Future research that includes measures of medication-taking behaviors in addition to measuring medication adherence is recommended.

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Background: Recent advances in mobile technology and wearable devices offer the opportunity to promote health and prevent non-communicable diseases by delivering health interventions that are theory-based, adapt to individuals, and support health maintenance by providing “just in time” support. Although data suggest that the “digital divide” is narrowing between lower SES groups, racial/ethnic minorities and the general population, few mHealth interventions have been conducted in these U.S. populations. The aim of the current study was to conduct a review of the literature of mHealth interventions targeted for lower income U.S. adults to determine the extent of the evidence for mHealth in this population.

Methods: Articles were identified via PsychInfo, PubMed, Google Scholar, EbscoHost, and references cited in reviewed articles and searches of relevant journals (January 2011 to November 2015). The following search terms were used: “mHealth” OR “mobile phones” OR “smartphones” OR “text message” AND “low income” OR “socioeconomic status” AND “health behavior” OR “physical activity” OR “diet” OR “diabetes” OR “mental health” OR “obesity” OR “smoking.” Studies that were published in English as journal articles or conference proceedings; described more than one participant; and described the use of an mHealth intervention used in lower SES individuals with the purpose of impacting health behavior change were included.

Results: The searches returned 141 abstracts. Of these, 15 full text papers eligible for inclusion were retrieved for further review. Of the eight unique studies included in this review, four targeted diabetes, two targeted mental health, one targeted diet, and one targeted weight loss. SMS text messages was the primary technology, sent either daily or weekly. One study used a fully developed smartphone application. Response rates to two-way interaction text messages were generally high (range of 50-85.2%) and most users rated the mHealth interventions positively. Of the interventions (n=5) that measured a primary health outcome, all showed significant, positive results.

Conclusions: This review is the first to examine the current literature on mHealth interventions in low SES American adults. User engagement and satisfaction was generally high amongst participants, suggesting that mHealth may be feasible in these populations.

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Mobilizing Patients’ Health Assets in Clinical Settings – Patients Requirements and Potentials of Technology

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Background: Health assets are attributes that help people manage their illness, such as will power, positive attitudes, endurance, or supportive relationships. Helping patients mobilize their personal health assets is essential for illness self-management and health care. However, lack of attention to patients’ health assets is still reported as an important issue in patient-provider communication.

Objectives: To explore 1) requirements of patients with chronic conditions for an intervention to help them rise awareness and include health assets in consultations with healthcare providers; and 2) how technology can be designed to meet these requirements.

Methods: Thirty-nine participants (age range 31 to 71, 28 women) recruited from patient education programs for COPD, chronic pain or morbid obesity. We organized four focus groups, 18 interviews, and 11 workshops, using applied participatory design methods: design scenarios, card-sorting, and paper prototyping. Transcribed material was analyzed using content analysis.

Results: Health assets descriptions ranged from personal to interpersonal and from specific to general, and included personal characteristics, health-related behavior, and interpersonal and environmental factors. Participants expressed a clear need for a support tool that could be integrated into the consultation preparation process, and that would support them in identifying and reflecting on their health assets in relation to personal health-related goals. Participants provided rich suggestions on: 1) how health assets could support self-management of chronic illnesses and could be integrated into patient-centered consultations; and 2) identified a number of requirements, including usefulness, context of use, functionality and design for such a support tool. With participants as co-designers a low-level prototype of a tool was developed.

Conclusion: This study provides insights into patients’ expectations and needs necessary for the development of an intervention to support mobilization of patients’ health assets in clinical settings, and outlines how technology can be used to support patients to be more active participants in consultations with healthcare provider.

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OBSTRUCTIONS IN POPULAR BIKE LANES IN NEW YORK CITY: IMPLICATIONS FOR POLICY

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Introduction: In New York City, bicycle riding has become increasingly popular, and investments have been made to develop and enhance existing infrastructure to accommodate riders. Urban bike lanes, however, may not be clear of obstructions which can force riders to exert additional caution when traveling. The purpose of this pilot study was to assess the number and type of obstructions in selected bike lanes in New York City.

Methodology: Three bicycle lanes, each representing a specific type (bike path protected from vehicular traffic; marked bicycle lane [typically between parking lane and moving traffic]; and lane shared with motorists), were selected in an area of Manhattan, New York City, representing a mixed residential, commercial, and institutional setting. Obstructions were recorded as being stationary or moving, categorized to determine the nature of the obstruction, and recorded during four separate time periods (weekday morning and evening commutes; weekday and weekend recreation hours).

Results: The most common obstructions were cars, vans or taxis (40%), followed by pedestrians (31.11%), trucks (12.59%) and bicycles traveling the wrong way (5.19%). Other obstructions included traffic cones, food carts, and individuals using other forms of transport, e.g. skateboards, moped, scooter, and rollerblades. Four out of five obstructions were moving, and almost half of the obstructions were present during recreational hours on weekdays. Obstructions were highest in the marked bicycle lane.

Discussion: Riders’ safety may be compromised by obstructions in areas designated for cycling. In particular, riders in marked bicycle lanes may be forced to cycle into traffic to avoid colliding with an obstruction. If larger studies provide further support, policy efforts can include promoting public awareness and greater enforcement/clarification of bicycle lane regulations to keep lanes clear for safer riding.

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PEER-TO-PEER COMPARED WITH PROFESSIONAL HELPERS IN THE KIN TECH RCT FEDERAL DEMONSTRATION PROJECT.

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Introduction: The KIN-Tech 2012 Fostering Connections Kinship Navigator federal demonstration project is the only randomized controlled trial funded by the US Children’s Bureau to investigate Peer-to-Peer Navigators (PP2N) (paraprofessionals who are also grandparents raising grandchildren) and professional navigators (PN) (>bs degree) to improve psychosocial outcomes for grandparents and other relatives and the children in their care. This study compares community resource navigation, service provision characteristics, supervision needs, and cost for PP2N and PN.

Methods: Two hundred participants in this study were randomly selected from PP2N and PN groups. Data were matched with administrative records containing benefit application and enrollment information, fidelity, supervision records, and budgets. Data from 10 PP2N and 10 PN were also analyzed from 23,000 service hours. Semi-structured interviews were conducted.

Results: PP2N had the highest benefit application (75%) and enrollment rates (53%) compared to PN (26%, 16%). PP2N had a narrower scope of activities (i.e. home visits, psychosocial assessments, support groups) (n=10 tasks), compared to PN (n=20 tasks) (i.e. family support plan, health assessments). PP2N require approximately 10 times more supervision hours than PN (1 hour/week vs. 10). PP2N costs less ($49 per child/month) than PN ($79) and usual care ($492). Qualitative data supported quantitative findings.

Conclusion: These results suggest that PP2N may be effective, but PN may be better equipped to provide extensive services to families. PP2N may also require more supervision from supervisors. Even accounting for high supervision cost, PP2N is an affordable, low cost option to provide services to GRG and connect them with community resources and supports.

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PERCEIVED EMOTIONAL SUPPORT AMONG CAREGIVER’S SOCIAL NETWORK PREDICTS SUBSEQUENT PATIENT HEALTH

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As the US population continues to age, it is important to understand how social systems and networks complement traditional healthcare services for optimal patient health and wellbeing. Most social support research has examined support from an individual patient perspective and does not model the broader social context of support felt by caregivers. We sought to identify how caregivers’ perceived organizational and interpersonal support from their network influences patient health.

Patient data were obtained from the first and second waves of the National Health and Aging Trends Study (NHATS), and caregiver data from the associated National Study of Caregivers (NSOC). Our primary analysis consists of N=768 patients and their associated caregivers (N=1,413). Structural equation modeling was used to understand how a caregiver’s perceived organizational and interpersonal supports predict patient health status as reported in the first and second waves of the NHATS survey. Caregiver and patient demographic controls were identified with bivariate correlations. The severity of patient illness was controlled by accounting for the number of chronic illnesses reported by the patient.

Caregiver confidence in care provision (β=.07, p < .05), and emotional support provided by caregivers’ network members (β=.13, p < .01) predicted patient health at wave 1. Emotional support from caregivers’ network members, controlling for patient health at wave 1, also predicted patient health at wave 2 (β=.13, p < .01). Caregiver confidence was positively predicted by emotional support (β=.07, p < .05) and negatively predicted by functional support (β=-.06, p < .05).

We conclude that patients experience better health and wellbeing when caregivers feel more supported by their own social network. This study builds upon existing research by demonstrating that social network support measured through a network perspective provides a broader narrative of how support environments influence patient health and wellbeing.

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POST-DIAGNOSIS SOCIAL NETWORKS AND BREAST CANCER MORTALITY IN THE AFTER BREAST CANCER POOLING PROJECT (ABCPP)

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Background: Large social networks have been associated with better overall survival though not consistently with breast cancer (BC)-specific outcomes. We evaluated associations of post-diagnosis social network size and BC outcomes in a large pooled cohort.

Methods: 9,267 women from the After Breast Cancer Pooling Project, including women from the US and Shanghai, provided data on social networks within approximately two years following diagnosis. A social network index was derived from information about the presence of a spouse or intimate partner, religious ties, community ties, friendship ties, and numbers of first-degree, living relatives. We used Cox models to evaluate associations, and meta-analysis to determine whether effect estimates differed by study. We stratified by demographic and tumor factors.

Results: 1,470 recurrences and 1,521 deaths occurred, 990 from BC. Associations were similar in three of four cohorts. After covariate adjustment, women who were socially isolated (small networks) had higher risks of BC recurrence (HR=1.41, 95% CI:1.17-1.71), BC-specific mortality (HR=1.64, 95% CI:1.33-2.03), and total mortality (HR=1.69, 95% CI:1.43-1.99), compared to socially integrated women; associations were stronger in those with stage I/II cancer. In the fourth cohort, there were no significant associations. Associations between specific social ties and outcomes varied by age, race/ethnicity, and country of origin.

Conclusions: In a large pooled population of BC survivors, larger social networks were generally associated with better BC-specific and overall survival. Findings further suggested that women, depending on demographic, cultural, and tumor characteristics, depend differently on their social networks. Clinicians should assess information on social networks at the time of diagnosis as a marker of prognosis.

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C150a 6:00 PM-7:00 PM

**PROMOTING PRIMARY AND SECONDARY PREVENTION: A NEW APPROACH TO IDENTIFY AT-RISK AFRICAN AMERICANS FOR CARDIOMETABOLIC SYNDROME**

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**Background:** Persons with cardiovascular disease (CVD) and type 2 diabetes (T2D) have multiple risk factors for and higher incidence of chronic diseases. Several of these risk factors, hypertension, dyslipidemia, obesity and abdominal adiposity, commonly cluster together, and are termed "cardiometabolic syndrome" (CS). African Americans are disproportionately impacted by CS and often receive delayed diagnosis and treatment. They represent a priority population for early detection and intervention because the risk factors can be prevented. It is common for African Americans to seek care for immediate pain and suffering at emergency departments and free emergency dental clinics. Emergency dental clinics such as the Mission of Mercy (MOM) may allow for identifying African Americans at risk for CS and engage them in lifestyle interventions designed to promote primary and secondary prevention for CVD and T2D.

**Objective:** To describe CS profile of African Americans attending the 2014 MOM and Health Equity Festival in Prince George's County, Maryland.

**Methods:** A secondary analysis of electronic dental records collected from the MOM and Health Equity Festival identified African Americans (N=494) who reported one or more CS risk factors (smoking, pre-hypertension, and hypertension) and a chronic disease (diabetes and/or CVD). Descriptive statistical analysis calculated frequencies and proportions.

**Results:** The majority (66.0%) of participants reported at least one CS risk factor. Sixty-four percent had stage 1, 2, or isolated hypertension. Approximately 13% reported diabetes diagnosis. This prevalence is above the national average. **Conclusion:** Non-traditional clinical settings such as emergency dental health fairs are ideal settings to identify and engage African Americans at-risk for CS, and address their comprehensive health needs beyond the immediate dental pain and suffering. Health fairs are not a substitute for primary care in a medical home. These non-traditional settings present an opportunity to conduct systematic screenings for CS risk factors, link individuals to primary care and promote evidence-based behavior changes to prevent or delay onset of chronic disease.

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C151a 6:00 PM-7:00 PM

**HOW DO CANCER SURVIVORS ENGAGE WITH CONFLICTING EXPERT OPINION?**

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**Background:** Ambiguity around credibility, reliability, or adequacy of medical information is increasingly important in medical decision making as the evidence base grows. The aversion to ambiguity is an established cognitive bias, with previous work demonstrating associations with cancer risk perceptions and sociodemographics. However, its association with previous cancer diagnosis is little explored. We used the nationally-representative NCI Health Information National Trends Survey (HINTS) dataset to address this gap.

**Methods:** NCI’s HINTS 4 Cycle 4 was a self-administered mailed questionnaire sent in 2014 to US adults 18 years or older. Respondents reported willingness to try a medical test/treatment with conflicting expert endorsement on a 4-point Likert scale, an item in the often-used Ambiguity Aversion in Medicine Scale. Weighed univariate and logistic regression analyses examined possible correlates, including previous cancer diagnosis and worry about cancer.

**Results:** HINTS 4 Cycle 4 had a 34.44% response rate for a final sample of 3,677 respondents; after dropping cancer diagnosis missing values our sample was 3,072 respondents. Over half (60.58%) somewhat or strongly agreed that they would still be willing to try tests/treatment even with conflicting expert opinion. Respondents who had previously been diagnosed with cancer were more likely to try conflicting tests/treatment than those with no previous diagnoses (OR=1.72, CI=1.18-2.53, p=0.006). Compared to those reporting to be not at all worried about cancer, respondents somewhat or moderately worried were more willing to try disputed tests/treatment (OR=1.48, CI=1.03-2.13, p=0.034; OR=1.76, CI=1.17-2.64, p=0.008). Age and gender were not significant.

**Conclusion:** We posit that cancer survivors may not look at one aspect of ambiguity (tests/treatment with conflicting expert opinion) as negatively as others, either utilizing a ‘glass half full’ approach to faith in medicine after surviving cancer, or possibly having already learned that ambiguity does, indeed, exist in medicine and to accept it.

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ASSOCIATIONS BETWEEN OUTCOME EXPECTANCIES AND USE PATTERNS OF ELECTRONIC NICOTINE DELIVERY SYSTEMS (ENDS)

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The use of electronic nicotine delivery systems (ENDS), including electronic cigarettes and nicotine vaporizers, is becoming increasingly common among young adults. Previous research on adolescent combustible cigarette users has identified several outcome expectancies, including weight management, boredom relief, and negative affect, that are associated with both current smoking status and distal smoking outcomes such as escalation and cessation. In this study we aimed to determine the degree to which young adult users of ENDS exhibit these expectancies and the relationship between expectancies and patterns of ENDS use. Several aspects of current use were assessed, including frequency of use (i.e. times per day and days per month), ENDS seeking behavior, and nicotine concentration. Data from this study come from the second phase of an ongoing three phase study which aims to understand and measure young adult ENDS use patterns and motives for continuation. Data from 303 participants ages 18 – 24, who used ENDS or co-used ENDS and combustible cigarettes in the week preceding data collection, were included in these analyses. Participants were asked to self-report demographics and ENDS use behaviors, and were administered a modified version of the Smoking Consequences Questionnaire. A series of multiple regression models was estimated and bootstrapped coefficients and significance terms were computed. Smoking behavior was regressed onto the three expectancies and total expectancy scores, respectively, controlling for age and gender. Nicotine concentration was not associated with any expectancies. Daily use frequency was significantly associated with all expectancies and total expectancy scores. Monthly use (days per month) was associated with negative affect management and boredom relief expectancies, but not with weight management expectancies. ENDS seeking behavior was associated with all expectancies except for negative affect management. These data provide evidence that expectancies are differentially associated with use patterns among young adult ENDS users.

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BEYOND TRADITIONAL NEWSPAPER ADVERTISEMENT: LEVERAGING FACEBOOK TARGETED ADVERTISEMENT TO RECRUIT SMOKERS FOR RESEARCH

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Aims: Smokers are a stigmatized population, but an important population to reach for the purpose of research. Therefore, innovative recruitment methods are needed that are cost effective and efficacious in recruiting this population. The aim was to evaluate the feasibility of Facebook targeted advertisement to recruit long-term smokers eligible for lung cancer screening for a descriptive, cross-sectional survey.

Methods: A social media recruitment campaign was launched using Facebook targeted advertisement to target age and keywords related to tobacco smoking in the Facebook users profile, interests, and/or likes. The study that used Facebook targeted advertisement for recruitment aimed to test the psychometric properties of four newly developed lung cancer screening health belief scales. Data was collected via cross-sectional survey methodology using an online survey platform.

Results: The Facebook targeted advertisements were viewed 56,621 times over an 18-day campaign in 2015 in the U.S. The advertisement campaign yielded 1,121 unique clicks to the online survey platform at a cost of $1.51 per completed survey. Of those that clicked through to the study survey platform, 37.7% (n=423) consented to participate; 8.2% (n=92) dropped out during completion of the survey yielding a final study pool of 331 completed surveys. Participants represented current (n=162; 49%) and former smokers (n=167; 51%) with a mean age of 63.1 years (SD 5.9). The advertisement campaign cost was $500.00 total for the 18-day campaign.

Conclusions: Facebook offers a new venue for recruitment into research studies that offers the potential for wider reach at a lower cost while providing privacy and flexibility for potential study participants. The study’s findings extend recent work of other researchers who have demonstrated Facebook’s utility with younger smokers and is an effective tool to recruit older smokers. Further, Facebook is a cost effective alternative to traditional newspaper advertisement offering a new, affordable venue to recruit large numbers of older smokers efficiently.

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C162a 6:00 PM-7:00 PM

ELECTRONIC NICOTINE DELIVERY SYSTEMS: THE STATE OF STATE POLICY
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Introduction. Use of electronic nicotine delivery systems (ENDS), also known as e-cigarettes, is on the rise. In 2014, more U.S. high school students used ENDS than used traditional cigarettes. In the absence of federal legislation, many states have taken action to regulate these products. We aimed to identify and categorize existing legislation to date across all fifty states.

Methods: We first used the database maintained by the National Conference on State Legislatures to identify legislation passed by individual states to regulate ENDS. We then hand-searched the text of all relevant legislative bills available through each state’s online legislative database to further clarify legislative action and to obtain detailed information such as date of passage. We categorized legislative action based on specific type of regulatory control (e.g., youth access, marketing, taxation, or clean air).

Results: Forty-nine states (all except Pennsylvania) and the District of Columbia (D.C.) have passed legislation related to ENDS. Forty-seven states have defined ENDS, and forty-nine states and D.C. have passed legislation restricting the sale of ENDS products to minors. Seven states mandate childproof packaging on bottles of liquid nicotine (Arkansas, Massachusetts, Minnesota, New Mexico, Oregon, Vermont, Wyoming), three states have laws specific to taxation (Kansas, Minnesota, North Carolina), and three states (North Dakota, Oregon, Delaware) have extended clean air laws to include ENDS.

Conclusion. In the absence of federal legislation and implementation of recommendations proposed by the FDA, states have passed legislation aimed at defining ENDS and curbing their sale to minors. Some states have also passed legislation mandating childproof caps, perhaps in light of high profile cases of nicotine poisoning in children. Variation among state laws suggests a potential role for federal oversight alongside state action. Health professionals should be aware of the variation among state laws and potential value in adapting outdated tobacco control policies to include ENDS.

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C162b 6:00 PM-7:00 PM

EXAMINING THE EFFECTS OF MATCHING AND CHOICE ON EVALUATIONS OF ARGUMENTS FOR SMOKING CESSATION AND CESSATION INTENTIONS
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Background: Self-generated arguments are more effective in changing attitudes and behavior than arguments made by others (Baldwin et al., 2012). Self-Determination Theory (Ryan & Deci, 2000) and prior evidence (Baldwin et al., 2012) suggest the effect of self-generated arguments may be due to choosing argument topics or matching argument content, but it is unclear if these effects are independent. We tested the independent effects of argument choice and argument matching on evaluations of smoking cessation arguments and cessation intentions.

Methods: Current smokers (N=201) using MTurk, an online crowdsourcing site, were randomized to a 2 (topic choice: yes, no) x 2 (matching: matched, mismatch) factorial design to read arguments promoting smoking cessation. In the second part of a two-part study, participants selected (choice) or were assigned (no choice) arguments about smoking cessation containing content that was either matched or mismatched to their own smoking concerns identified in part one. Participants rated the arguments’ convincingness on a single-item, completed a decisional balance measure (Velicer et al., 1985), and reported cessation intentions (Biener & Adams, 1991).

Results: Results indicated a large matching effect such that participants in matched conditions rated arguments as more convincing than those in mismatched conditions $F(1,195)=10.40, p=.001, d=.459$. There was not a significant effect of choice or choice x matching interaction on convincingness ratings, decisional balance, or change in cessation intentions ($p$s>.05). Significant correlations between convincingness ratings and changes in cessation intentions ($r=-.27$, $p=.004$) and smoking pros and cons, respectively ($r=-.42$, $p<.001$) indicate the importance of the argument ratings.

Conclusion: The results suggest that the extent to which choice might influence the persuasiveness of self-generated arguments is in how choosing argument topics might lead to individually matching the argument content. Findings have important implications for health behavior change interventions.

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PREVALENCE OF WATERPIPE TOBACCO SMOKING ESTABLISHMENTS NEAR LARGE UNIVERSITIES: UTILITY OF PUBLIC DATA FROM THE YELP PLATFORM

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Background: Waterpipe Tobacco Smoking (WTS) is an emerging health concern, especially among university students. It has been challenging to assess the proliferation of WTS establishments around university campuses. However, available online platforms that catalog businesses and consumer feedback may be helpful in this regard. Therefore, the purpose of this study was to assess the utility of Yelp, a popular source of localized business information, in estimating WTS establishment prevalence near university campuses.

Methods: We selected the 20 largest brick-and-mortar U.S. universities based on undergraduate student enrollment. Then, using Yelp’s public Application Programming Interface, we obtained listings of businesses that matched a broad search for “hookah” within five miles of targeted campuses. All listings were double-coded using data from Yelp, external websites, and telephone calls as needed, to determine whether listed businesses were actually establishments in which WTS occurred (e.g., hookah bars or restaurants permitting indoor hookah smoking). Coders also assessed characteristics of these establishments, such as availability of food, alcohol, live entertainment, and hookah paraphernalia to purchase and take home.

Results: Within 5 miles of the 20 campuses, 478 businesses matched the “hookah” search term. Of these, 198 (41%) were confirmed as WTS establishments. There was near-perfect correlation of initial Yelp search results and confirmed data in terms of rank-order (Spearman’s $\rho = 0.95$). Of the 198 WTS establishments, 83% served food, 60% served alcohol, 76% provided live entertainment, and 30% were retailers of hookah products to take home.

Conclusions: Yelp-derived data were easily obtained. While the majority of Yelp listings obtained using the “hookah” search term were not actually WTS establishments, Yelp data provided near-perfect correlation with the number of confirmed WTS establishments in a relative sense. Thus, WTS Yelp data may be highly valuable to behavioral researches when it is needed to provide relative comparisons.

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DISCRIMINATION AND C-REACTIVE PROTEIN IN A BIRACIAL COHORT AT THE INTERSECTION OF RACE AND CLASS: SOCIOECONOMIC STATUS DISCRIMINATION AND C-REA refute protein IN A BIRACIAL COHORT

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Background: Several researchers have argued for the importance of examining discrimination through an “intersectional” lens, which posits that discriminatory stressors may be most impactful for African-Americans of high socioeconomic status (SES) compared to low SES African-Americans and Whites. We tested this hypothesis by examining the association between SES discrimination—an understudied measure of discriminatory stress—and C-reactive protein (CRP) in a biracial cohort of middle-aged adults.

Methods: Participants were 401 African-American and White adults (68.2% female, 51.4% African-American, 54.1% college educated), mean age 50.5±9.5 years from the Morehouse & Emory Team Up to eliminate Cardiovascular Health Disparities (META○HEALTH) study. SES was dichotomized as high (college-educated) or low (< college educated). Experiences of SES discrimination were self-reported with a modified Experiences of Discrimination Scale, and CRP levels were assayed from blood samples. Linear regression analyses were used to examine the associations among race, SES, self-reports of SES discrimination and CRP after controlling for age, gender, racial and gender discrimination, financial and general stress, body mass index, smoking, sleep quality, and depressive symptoms. Intersectional effects were tested using race X SES discrimination, SES X SES discrimination and race X SES discrimination interactions.

Results: High and low SES African-Americans reported more SES discrimination than their White counterparts ($p < 0.05$). In a model adjusted for age, gender, and all relevant 2-way interactions, we observed a significant race X SES X SES discrimination interaction ($p=0.02$). Stratified models revealed that SES discrimination was associated with elevated CRP among high SES African-Americans ($\beta=0.31$, $p=0.01$), but not among low SES African-Americans ($\beta=-0.22$, $p=0.12$); or low ($\beta=-0.06$, $p=0.76$) or high ($\beta=-0.01$, $p=0.99$) SES Whites.

Conclusions: Findings support the relevance of SES discrimination as an important discriminatory stressor for health specifically among high SES African-Americans.

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The purpose of the present study was to evaluate the prevalence and effects of burnout on performance over the course of half a residency year. Performance results revealed that burnout would predict below average performance and be negatively associated with trait mindfulness.

Results: Overall, 66% (n = 25) of the residents met criteria for burnout over the course of half a residency year. Performance was measured using program director evaluations on milestones from the Accreditation Council for Graduate Medical Education. Stress, depression, and trait mindfulness were also assessed. We hypothesized that burnout would predict below average performance and be negatively associated with trait mindfulness.

Method: This project was a longitudinal investigation of internal medicine residents. Thirty-seven residents participated, with 18 completing validated measures of stress, depression, burnout, and trait mindfulness at all three time points. Performance was measured using program director evaluations on milestones.

Discussion: Burnout was high among this sample of internal medicine residents. Findings suggest that some aspects of performance may be facilitated by burnout, such as greater willingness to work hard, despite the sacrifices, is rewarded by higher performance evaluations. Other aspects of performance may be negatively influenced by the presence of high burnout, specifically patient care performance. Mindfulness may protect against the negative effects of stress and burnout. Future research should investigate the effects of mindfulness-based interventions for this population, as they may be helpful in reducing burnout and improving performance.
Emerging Adults: Individual Differences in Stress Exposure

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Extant research has indicated an existing relationship between chronic stress and an increased risk of cardiovascular disease (CVD). Identifying protective factors and triggers of stress early in life can reduce chronic stress and account for better health outcomes. Few studies have examined these protective factors in the critical time point of young adults transitioning from high school to a college setting, a time when emerging adults encounter new stressors and must develop new coping strategies. Thus, the purpose of the study was to assess the relationship between an individual’s stress, hostility, health status, and life satisfaction.

We hypothesized that hostility, health status, and life satisfaction would predict end of the semester stress-exposure. To test our hypothesis, Freshmen college students (N=41, 88% Caucasian) were assessed within the first month of college (T1), midterm (T2), and during the last two weeks of the Fall semester (T3). Measures included the following: the Cook Medley scale was used to measure hostility (M=10.95, SD=24.87); 5-point Likert scale items from the Health Behavior Survey were used to assess life satisfaction (M=1.66, SD=.617) and health status (M=2.37, SD=.829); and stress exposure was assessed by the Inventory of College Students’ Recent Life Experiences (M=39.24, SD=24.87). Although health status at T1 did not predict stress exposure, hostility (Cook Medley; β=-0.332, p<.01), health status (β=-0.367, p<.01), and stress exposure was assessed by the Inventory of College Students’ Recent Life Experiences (M=39.24, SD=24.87). These data indicate that students who were higher in hostility and lower in life satisfaction at the beginning of their freshman year reported more stressful life events by the end of the semester. Further research is needed to determine whether hostility and low life satisfaction lead to noticing and remembering more stressful events or behaviors that made stressful events more likely to happen.

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C175a 6:00 PM-7:00 PM
RUMINATION AND STRESS INTERACTIVELY CONTRIBUTE TO SOMATIC SYMPTOMS
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Stress is a consistent contributor to somatic symptoms (Murberg, 2012). Rumination, the tendency to cognitively perseverate on a common negative theme (e.g., anti-gay harassment, discrimination, violence), which are positively related to suicidality and depression, with depression being robustly related to suicidality in this population. According to the minority stress model (Meyer, 2003), social support has been posited to moderate the relationship between heterosexism and mental health; however, few studies have examined how the relationship among heterosexism, depression, and suicidality might be moderated by social support. The purpose of this study was to identify whether social support from friends moderated the relationship between heterosexist experiences and symptoms of depression, and if depressive symptoms led to suicidality in LGB adults.

Methods: Using online questionnaires, this study utilized a national recruitment strategy to collect self-report data from 239 LGB racially diverse adults about their experiences with heterosexism, depressive symptoms, suicidal ideation, and social support.

Results: A moderated mediation revealed that social support from friends exacerbated the effects of heterosexist harassment and rejection on symptoms of depression such that those with greater social support from friends and greater harassment and rejection was associated with greater depressive symptoms. Greater symptoms of depression were also associated with greater suicidal ideation. Depressive symptoms fully mediated the relationship between heterosexist harassment and rejection and suicidal ideation with results indicating a significant moderated mediation.

Conclusion: Social support from friends may exacerbate the negative effects of heterosexism, which may contribute to greater depression symptoms and lead to suicidality in LGB adults.

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C170d 6:00 PM-7:00 PM
FRIEND OR FOE? CAN SUPPORT FROM FRIENDS AMPLIFY HETEROSEXISM AND ITS EFFECTS ON DEPRESSION AND SUICIDALITY?
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Background: Suicide is a serious public health concern that can have a lasting effect on individuals, families, and communities for which lesbian, gay, and bisexual (LGB) adults are particularly at risk. LGB adults experience a number of minority stressors including heterosexism (e.g., anti-gay harassment, discrimination, violence), which are positively related to suicidality and depression, with depression being robustly related to suicidality in this population. According to the minority stress model (Meyer, 2003), social support has been posited to moderate the relationship between heterosexism and mental health; however, few studies have examined how the relationship among heterosexism, depression, and suicidality might be moderated by social support. The purpose of this study was to identify whether social support from friends moderated the relationship between heterosexist experiences and symptoms of depression, and if depressive symptoms led to suicidality in LGB adults.

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Conclusion: Social support from friends may exacerbate the negative effects of heterosexism, which may contribute to greater depression symptoms and lead to suicidality in LGB adults.

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SMOKING IN A SOCIAL CONTEXT: WHAT DOES STRESS HAVE TO DO WITH IT?

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Background: Despite decreases in smoking prevalence overall, smoking remains the leading cause of preventable death in the United States. Inequities in smoking outcomes persist such that those of low socioeconomic status (SES) are more likely to be smokers and less likely to quit. Psychosocial and socioeconomic stressors are thought to explain inequities in smoking, but there is little research examining the relationship between SES, various stressors, and smoking. As a result, this paper examines these relationships and whether chronic stress as represented by several types of stress/stressors mediate the relationship between SES and smoking.

Methods: We used data from the Health in Common study of adult, low-income housing residents (n=828) in the Boston metropolitan area. We conceptualized SES as a latent variable including income, education, employment, and car ownership. Chronic stress was a latent variable including financial strain, food insecurity, perceived stress, physical neighborhood disorder, and environmental exposures in the home. Current smoking status was an observed variable dichotomized to current smoker versus former and never smoker. We conducted structural equation modeling (SEM) adjusting for nativity, age, and sex.

Results: Higher SES was associated with a decreased probability of being a current smoker (probit regression standardized coefficient=-.31, p < 0.05) and higher chronic stress was associated with a higher probability of being a current smoker (standardized coefficient=0.24, p < 0.05). However, SES was not significantly associated with chronic stress and there was no evidence for mediation.

Conclusion: Smoking is partially patterned by social structures related to both SES and chronic stress. However, they might exert their impact on smoking through different pathways. More research should be done in different population segments to understand the role of stress in the SES-smoking relationship and to identify salient chronic stressors that pattern health in different communities.

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WHETHER AND HOW CAN CREDIT CARD DEBT GET UNDER THE SKIN? A CASE IN TAIWAN

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Given the well-documented socioeconomic gradient of health, still little is known about which aspect of credit card debt, often referred to as predatory in nature, is most relevant to one’s health status, beyond and above the traditional measures of socioeconomic position (such as education, income, and occupation, etc.). By utilizing data from “Taiwan Social Change Survey” in 2007 and accounting for traditional socioeconomic indicators as well as sociodemographic variables that have been consistently shown to have health implications, this study wishes to investigate (1) which aspect of credit card debt is more predictive of one’s health status, and (2) whether mental wellbeing is responsive to credit card debt more promptly and then mediates between debt and physical wellbeing, or instead mental wellbeing is linked to credit card debt through a more immediate reaction of physical wellbeing. Results show that having credit card debt alone, regardless of its amount in absolute value or in percentage of the overall debt, is uniquely associated with worse health, both physically and mentally. In addition, the mediation analyses in terms of bootstrapped indirect effect indicate that, credit card debt is related to increased psychological distress in a more immediate way, which in turn leads to greater physical impairment. The limitations and implications are also discussed.

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Saturday
April 02, 2016
10:15 AM-11:15 AM
Two thirds of US adults indicate using some type of social media; use is more prevalent among parents (83%). Nationally, Facebook is the most popular social media site among parents, with 75% logging on daily. Understanding that social media provides an emerging and innovative space for parent-based health promotion campaigns, this study explored social media use among parents in Tennessee (TN). A representative statewide sample of 681 adults was drawn using dual-frame landline/cell phone methods. Participants were interviewed on health topics, education, and use of social media using a Computer-Assisted Telephone Interview survey during Aug and Sept 2015. Data were weighted on gender, age, and race in TN. Sixty percent of adults in TN used social media; similar to national trends, use was more prevalent among parents at 76%. More than one third of TN parents reported communicating with other parents or friends on social media about issues related to their child’s health, with 30% communicating ‘often’ or ‘always.’ Mothers were significantly more likely than fathers to communicate this way (41% vs 23%; \( \chi^2=5.97, p < .05 \)); this was especially true in the Appalachian region of TN where 53% of mothers used this strategy. Facebook was the most popular social media platform among TN parents (79%), followed by Instagram (32%) and Twitter (29%). Parents were significantly more likely than non-parents to use Facebook (\( \chi^2=21.16, p < .001 \)) and Instagram (\( \chi^2=10.11, p < .01 \)). More mothers reported using Facebook than fathers (80% vs. 61%; \( \chi^2=6.59, p < .01 \)). While adults living in the Appalachian counties of TN were significantly more likely to use Facebook than non-Appalachian adults (\( \chi^2=6.79, p < .05 \)), there was no difference in parents’ social media use in this region. Of note, 84% of mothers residing in Appalachian counties of TN reported using Facebook (compared to 78% of non-Appalachian mothers). These results indicate that social media platforms are an appropriate place to reach TN parents with health messages and that mothers, in particular, may be receptive to this information.

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Background:
The Patient Reported Outcomes Measurement Information System (PROMIS) is an NIH-funded system of reliable, precise question-and-answer measures of patient-reported physical, social, and mental well-being. The measures can be administered via paper or electronic means. Adenotonsillectomy (T&A) procedures are one of the most common procedures performed at our institution, yet systematic measurement of patient-reported health status was not routinely carried out. We initiated pre- and post-surgery administration of PROMIS tools using tablet computers and e-mail to T&A patients at ambulatory surgery centers. Methods: Surgical patients undergoing T&A surgery ages 5-17 years old were enrolled (n= 56) on the day of procedure. PROMIS tools (measuring anxiety, depression, fatigue, physical function and peer relations) were administered in the waiting area prior to the procedure via tablet computer. Patient’s ages 5-8 years completed the questionnaires with a parent or guardian proxy. At 1 week post-procedure, an e-mail containing a link to the measures was sent to the patient’s caregiver; reminders to complete the survey were done by phone. PROMIS results were analyzed and descriptive statistics were generated following data collection. Results: 56 patients completed the pre-procedure (t1) and 1 week follow-up (t2) PROMIS assessments in 2014. Paired t-tests were used to analyze each domain at the time points. The 5-8 year old proxy group (n=38) reported significant change in all domains between t1 and t2; peer relations (\( p=0.007 \)), pain interference (\( p=0.0001 \)), anxiety (\( p=0.024 \)), fatigue (\( p=0.000 \)), and mobility (\( p=0.000 \)). The 9-17 year old group (n=18) reported significant changes in pain interference (\( p=0.04 \)), anxiety (\( p=0.007 \)) and mobility (\( p=0.02 \)). Conclusions: The PROMIS tools allowed for convenient, efficient measurement of patient-reported outcomes in pediatric T&A patients. Future plans include continued patient recruitment and administration of the PROMIS tools and investigation of the causes of the score changes to determine possible options for amelioration of post-procedure well-being.


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UNA VIDA SALUDABLE: A PHOTOVOICE PROJECT TO ADDRESS HEALTHY EATING AND ACTIVE LIVING AMONG HISPANIC/LATINO ADOLESCENTS

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Introduction: Adolescent overweight/obesity rates are rising in the United States, especially among Hispanic/Latinos in Delaware. School programs targeting healthy lifestyle behaviors have been ineffective with disparities continuing to worsen. To develop more successful programs, we need a deeper understanding of the factors that influence unhealthy eating and sedentary lifestyles.

Methods: We recruited adolescents from a local Hispanic student organization, Las Americas ASPIRA Academy. Eight adolescents aged 15 to 16 years (2 male and 6 female) participated in biweekly meetings held over a ten-week period. PhotoVoice was used to elicit facilitators and barriers to healthy eating and active living.

Results: For males, physical activity was viewed as planned exercise, such as sports or outdoor activities. Barriers included weather, responsibilities at home, lack of accessibility to parks, lack of workout gear, or enjoying sedentary activities (i.e., watching television). None of the females participated in physical activity. Both male and female participants viewed healthy eating as drinking water and consuming fruits. Parental views, money, access to fresh produce, and health literacy were identified as important barriers to healthy eating.

Conclusions: Parents act as gatekeepers to Hispanic/Latino adolescent food choices increasing the need for family-based programs among this group. Adolescents have misconceptions and obstacles that prevent them from being physically active. Future interventions need to focus specifically on either eating habits or physical activity toward the successful adoption of healthy behaviors. For example, nutrition interventions may be family-based whereas physical activity interventions might address incorporating physical activity into daily living.

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AN INTERPROFESSIONAL COURSE ON MINDFULNESS FOR HEALTHCARE PROFESSIONALS AND HEALTHCARE PROFESSIONALS IN TRAINING

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Purpose: High levels of burnout and other negative effects of work-related stress are well documented in healthcare professionals (HCPs). The purpose of the present study was to provide preliminary pilot data on the effects of a newly developed mindfulness-based intervention for interdisciplinary HCPs and HCPs in training on psychological measures of stress. We hypothesized decreases on measures of stress, anxiety, burnout, depression, and rumination.

Methods: Participants were two separate cohorts: one cohort of interdisciplinary HCPs (N=9) and one cohort of HCPs in training who enrolled in an elective course for credit (N=8). The intervention was an 8-week course that was structured into two halves each week: 1) didactic on the integration of mindfulness into clinical practice and 2) formal practice of mindful movement, breath awareness, relaxation, and seated meditation. Using a repeated measures, within-subject design, validated outcome measures were administered at baseline and at the intervention’s end.

Results: Paired t-tests revealed significant decreases on measures of perceived stress (t(16) = 2.27, p = 0.04), and burnout: emotional exhaustion (t(16) = 2.94, p = 0.01), and depersonalization (t(16) = 2.27, p = 0.04). Non-significant mean decreases were found for depression (pre M = 5.8, SD = 3.5, post M = 3.8, SD = 2.3) and state anxiety (pre M = 40.9, SD = 10.4, post M = 32, SD = 9.8). Rumination scores did not change (pre M = 9.9, SD = 4.2, post M = 10.2, SD = 6.5).

Conclusion: A mindful-movement based intervention for interdisciplinary HCPs and HCPs in training was preliminarily supported for the reduction of perceived stress and burnout. Importantly, the results suggest this intervention may be especially effective in decreasing two facets of burnout: emotional exhaustion and depersonalization, which are well documented negative effects of HCP stress. Limitations include lack of control group, small sample size, and lack of objective outcomes. Future research should evaluate this intervention on objective measures of stress and burnout compared to a randomized control group.

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BRIEF YOGA INTERVENTION INCREASES STATE MINDFULNESS IN DENTAL STUDENTS

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Purpose: State mindfulness has been shown to positively influence several outcomes, including reactions to stress. Healthcare professional students are one population for which stress and burnout are well documented. The purpose of the present study was to investigate whether a brief yoga intervention would increase state mindfulness (SM) in a sample of dental students. We predicted that SM would increase following the intervention. We also did an exploratory test to investigate whether trait measures of mindfulness, burnout, stress, depression, anxiety, and empathy would interact with the change in state mindfulness.

Method: A repeated-measures within-subjects design was used. Participants were third and fourth year dental and dental hygiene students (N=47, 76% female). Trait measures were assessed prior to the intervention using an online survey platform. The State Mindfulness Scale (SMS), a validated self-report measure of SM was used. The SMS has two subscales: SM of Mind and of Body; a sum of both subscales can be used for a measure of total SM. Students completed the SMS immediately prior to and following a one-hour yoga intervention.

Results: Total SM significantly increased from pre- to post-intervention (t(46)=10.26, p < 0.001). An ANCOVA was performed and perceived stress showed a significant interaction effect in the relationship between pre-/post-intervention SM of Mind (B = 0.51, p = 0.048); such that higher levels of stress saw greater increases in SM of Mind. None of the other trait variables significantly interacted in the relationship between pre-/post-intervention SM.

Discussion: A brief yoga intervention for dental and dental hygiene students significantly increased SM. These results suggest that yoga interventions may be effective at producing SM in this population. The results of the interaction analyses showed a robust increase of SM following the yoga intervention, regardless of trait characteristics. There was one exception: those with high levels of stress showed the largest increases in SM, suggesting a brief yoga intervention may be especially effective at increasing SM for those with high levels of stress. Future research should use a randomized control group to test group differences in SM.

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DELAYS IN SEEKING HEALTHCARE BY VETERANS WITH AND WITHOUT CHRONIC MULTISYMPTOM ILLNESS (CMI)

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Across eras, deployed Veterans experience chronic medically-unexplained symptoms that impact multiple body systems; this is referred to as Chronic Multisymptom Illness (CMI). The prevalence of CMI among returning Veterans is estimated to be 30% (Blanchard, et al. 2006). Compared to Veterans without CMI, Veterans with CMI are thought to perceive more barriers in seeking and obtaining adequate healthcare. This may, in turn, lead to delays in Veterans’ seeking appropriate healthcare. To date, no one has examined the types of barriers to healthcare that patients with CMI perceive. One year post-deployment, 318 OEF/OIF Veterans were asked about barriers to receiving mental healthcare and barriers to receiving physical healthcare, including logistical barriers (e.g., too busy) and illness belief barriers (e.g., didn’t think the doctor could help). Veterans were also screened for CMI using the Center for Disease Control (CDC) definition. Chi-square analyses were used to compare reported barriers of Veterans with CMI to Veterans without CMI. Veterans with CMI generally reported more barriers to physical and mental healthcare. Specifically, Veterans with CMI were 2 times more likely to endorse logistical barriers for mental healthcare ($\chi^2(1, N=318) = 2.86-9.24$, $p < .05$), 2 times likely to endorse logistical barriers for physical health care ($\chi^2(1, N=318) = 4.67-17.21$, $p < .05$) and 2 times more likely to endorse illness belief barriers for mental health care ($\chi^2(1, N=318) = 5.42-14.08$, $p < .05$). Veterans with CMI are 3-6 times more likely to endorse illness belief barriers for physical healthcare ($\chi^2(1, N=318) = 5.84-20.39$, $p < .05$). These findings suggest that healthcare providers should talk with Veterans about their perceived barriers to receiving healthcare for their symptoms, especially problems related to physical health.

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ALTERNATIVE KNOWLEDGE FRAMEWORKS AND INFORMED PATIENT DECISION MAKING: LESSONS FROM TESTING A COPD DECISION AID

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Purpose: To describe the impact of competing knowledge frameworks on information uptake from a decision aid for late stage COPD.

Methods: 18 participants were recruited from the NSLIJ recruitment registry: n=13 COPD patients/n=5 surrogates; n=8 male/n=10 female; mean age: 57 ±11; mean education: 9th-12th grade; race: n=6 White/n=7 Black/n=4 Hispanic/ n=1 Other; mean health: good/fair; numeracy: n=5 high/n=13 low. They viewed the decision aid and completed usability tasks. They also participated in interviews and focus groups that were recorded, transcribed and coded for qualitative analysis using hypothesis coding and NVivo™ software.

Results: As expected, low education and numeracy impacted understanding of terminology and prognostic data. Unexpectedly, independent of socio-demographics, was the impact of alternative knowledge (AK - non-biomedical knowledge, e.g. cultural frameworks, lived experiences, and embodied knowledge) on a) patient uptake of information, and b) emotional reactions to the decision aid. AK allowed patients to make sense of information when they lacked skills to understand (using AK frameworks to explain causality); or it overshadowed biomedical knowledge (a powerful lived experience had more influence than prognostic data for decision making).

Conclusions: While the bio-psycho-social model is accepted among behavioral and social scientists, the biomedical model is the dominant framework for clinicians communicating with patients. Here, patients are not considered to be informed unless they understand the biomedical information conveyed. However, our research has made us rethink what it means to be informed since patients often make decisions based on AK frameworks. For patients, these are valid frameworks for deliberating. Therefore, shared decision making should involve acknowledgement, inclusion and integration of these competing frameworks to establish the patient’s perspective. Sensitivity to AK and how it is used may help bridge communication gaps between clinician and patient.

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MOTIVATIONAL ORIENTATIONS TOWARD END-OF-LIFE PLANNING

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Background: Studies have demonstrated the advantage of advance care planning, yet individuals continue to resist planning care at the end of life, leading to potential for care that is not consistent with their wishes.

Objective: This study seeks to identify barriers to discussion about end of life care and advance care planning by examining how individuals’ consideration, and knowledge of end-of-life medical treatment may be influenced by differences in their fundamental motivational orientation as defined by regulatory focus theory (Higgins, 1997).

Method: Participants (N = 312) completed an online survey regarding end-of-life medical care, interaction with medical providers, and motivational orientation. A multiple regression analysis on participants’ end-of-life medical treatment consideration score that included individuals’ promotion focus scores, prevention focus scores, health care provider interaction score and age was performed. A separate multiple regression analysis on participants’ health care provider interaction score that included individuals’ promotion focus scores, prevention focus scores and age was also performed.

Result: Participants’ health care provider interaction was positively related to end-of-life care consideration (Partial R=.198, p < .001). Participants’ prevention focus was also positively related to considering end-of-life medical treatment (Partial R=.162, p < .01). Participants’ prevention focus was negatively related to health-care provider involvement (Partial R=-.15, p = .01), whereas participants’ promotion focus was positively related to health care provider interaction (Partial R=.22, p < .001).

Conclusion: This study result suggests that although the strength of their prevention focus may directly increase individuals’ concern with end-of-life medical treatment, it may nevertheless discourage them from taking advantage of potentially helpful conversations with their doctors. The result has implications for understanding why individuals may put off planning for end-of-life care, and how such resistance may best be overcome.

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A COLLABORATIVE STEPPED CARE INTERVENTION FOR TYPE 2 DIABETES MELLITUS, DEPRESSION, AND DIABETES-RELATED DISTRESS

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Depression is twice as common in patients with Type 2 diabetes mellitus (T2DM) and diabetes-related distress is positively correlated with HbA1c. This project addresses a growing need for integrated, tailored models of care with a collaborative stepped care intervention for patients with T2DM and co-morbid distress or depression. One hundred forty four obese (BMI M=36.87±8.97) men and women with uncontrolled T2DM (HbA1c M=9.56±1.90) were randomly assigned to intervention or control group. Intervention group participants were placed into one of three steps based on depression and distress symptoms as assessed by Diabetes Distress Scale (DDS-17) and the Patient Health Questionnaire (PHQ-9). Participants with low distress or depression received assistance with self-management; those with moderate distress or depression received problem-solving therapy; and those with high distress or depression received cognitive behavioral therapy. All participants complete the DDS-17, PHQ-9 and weight at months 0, 3, 6, 9, and 12. To date, 24 participants (13 intervention, 11 control) have completed 3-mo. assessment. Preliminary data were analyzed by distress and depression to explore differences in weight change. Intervention group participants with high depression lost more weight (M=-5.85lbs±11.30) than similar control group participants (M=-0.91lb±5.89; M Rank =18.95) than their Under/Normal Weight counterparts (M=19.32), No similar trend was found for participants with low distress or depression. While differences in weight change were not statistically significant due to small sample at this early point in the study, findings suggest a strong pattern of response to intervention in those with high levels of distress or depression compared to control group participants with similar distress or depression. If confirmed, findings will provide important insight regarding the need to identify and incorporate diabetes-related distress and depression into treatment.

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BMI COMPARISONS OF DIET BEHAVIOR AND PERCEPTIONS: A STUDY OF EMERGING ADULTS AT-RISK FOR TYPE 2 DIABETES

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Background: Type 2 (T2) diabetes (DM) continues to affect millions of adults in the U.S., with prevalence rates on the rise. Prevention is a public health priority. Many factors contribute to T2DM risk, including family history (hx), lack of physical activity, overweight and obesity, and unhealthy diet. By understanding and addressing health behaviors early in at-risk young adults, development of prediabetes and T2DM may be prevented.

Aim: This pilot study examines behavioral and psychosocial risk factors, including poor diet and associated BMI, in at-risk emerging adults participating in an ongoing study.

Method: Ss were 44 sedentary emerging adults (18-25) with a family hx of T2DM (68.2% White, 77.3% Female). Ss completed validated self-report measures assessing health hx, behaviors and perceptions. Fruit and vegetable consumption (SDSCA) and perceived diet competence (PCS) were compared by BMI status (36.4% Under/Normal Weight; 63.6% Overweight/Obese) using Mann-Whitney U tests.

Results: Overweight/Obese Ss consumed less fruits and vegetables (Mdn=1.50; M Rank=19.32) than their Under/Normal Weight counterparts (Mdn=3.50; M Rank=28.06), U=135.0, p=.022. Further, Overweight/Obese Ss endorsed less confidence in their ability to maintain a healthy diet (Mdn=3.38; M Rank=18.95) than their Under/Normal Weight counterparts (Mdn=4.38; M Rank=28.72), U=124.50, p=.014.

Conclusion: Findings highlight problematic diet behaviors and perceptions in emerging adults who have a plethora of risk factors for T2DM development. Overall fruit and vegetable consumption was low among all Ss. Importantly, Overweight and Obese Ss, who have greater risk due to their weight status, endorsed eating less fruits and vegetables and less confidence in their ability to maintain healthy eating. These findings suggest that at-risk emerging adults, particularly those who are overweight/obese, may benefit from lifestyle interventions addressing the importance of healthy diet as well as strategies to maintain healthy behaviors. Such intervention may help prevent T2DM onset.

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COMPARISON OF EMERGING ADULTS WITH AND WITHOUT TYPE 1 DIABETES ON PSYCHOSOCIAL OUTCOMES: AN 11-YEAR FOLLOW-UP
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The purpose of this study was to compare emerging adults with type 1 diabetes to a comparison group without diabetes who had been enrolled for 11 years. Both groups were enrolled in the study when they were average age 12 and now are average age 23. Retention was 81% for diabetes (n = 107; 56% female; 92% white) and 85% for controls (n = 111; 54% female, 93% white). There was no differential attrition in terms of sex or race but those who dropped out were marginally lower in social status than those who were retained (p = .07). Psychosocial interviews were conducted with both groups, in person when possible. Among demographic variables, group differences appeared for parent social status at age 12 and current body mass index (BMI), such that those with diabetes had lower social status and higher BMI. Group (diabetes vs. control) by sex ANCOVAs with covariates for social status and BMI revealed group differences in number of close friends and support from friends (p’s < .05), with the disadvantage in the direction of the diabetes group. In terms of risk behavior, alcohol use was greater among controls than those with diabetes (p < .05), but there were no group differences in binge drinking, cigarette smoking, or use of marijuana. Instead, males in both groups scored higher on each of these risk behaviors compared to females. For the first time in 11 years, group differences in depressive symptoms emerged, such that those with diabetes reported more depressive symptoms than controls (p < .05). There were also significant group differences in loneliness (p < .05) and purpose in life (p < .01) and marginal group differences in life satisfaction, perceived stress and personal growth (all p’s < .10), all in the direction of poorer well-being among those with diabetes than controls. Nearly half (46%) of those with diabetes reported other health problems compared to only 17% of controls. These findings show an emerging pattern of psychosocial disadvantage for those with type 1 diabetes by young adulthood.

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MEASURING COMMUNAL COPING IN TYPE 2 DIABETES USING A MULTI-METHOD APPROACH
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Following a diagnosis of Type 2 diabetes individuals must make changes in self-care activities to maintain optimal functional status. This adjustment is inherently an interpersonal process. Within romantic relationships, couples may define diabetes as a joint (vs. individual) problem and collaborate to address the problem, a notion referred to as communal coping. However, there is no consensus regarding the best approach to measure this construct. We used a multi-method approach to assess communal coping in 125 couples in which one partner was recently diagnosed with type 2 diabetes (< 3 years). Patients were 59% white, 55% male, with a mean age of 54 years. Communal coping was measured by: 1) self-report questions, 2) daily diary tracked over 10 days, 3) an index of “we” pronoun use during an audiotaped coping interview, 4) coding of patient and partner behavior from a videotaped discussion of a diabetes problem, and 5) the pictorial Inclusion of Other in Self (IOS) scale adapted for diabetes. Each measure was assessed in patients and partners. The five measures of communal coping were correlated with one another. Patient self-report, video code, and daily diary reports were correlated with those of partners, but patient and partner IOS or pronoun measures were not. We sought to determine which measure was most predictive of relationship, support, and health outcomes. All measures revealed some links to relationship outcomes, social support, and diabetes adherence, but video behavioral coding revealed the most consistent relations. Behavioral codes of communal coping were associated with higher relationship quality, greater receipt of emotional and instrumental support, less problematic support, and higher patient adherence (all p’s < .05). Importantly, patient and partner behavioral codes of communal coping were the only measures associated with patient psychological well-being (e.g., lower depression, all p’s < .05). Results suggest that behavioral codes of communal coping may have the strongest health implications.

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PREDICTORS OF DEPRESSION IN A SAMPLE OF LOW-INCOME AFRICAN AMERICAN ADULTS WITH TYPE 2 DIABETES

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The rate of depression in adults with diabetes is twice as high as adults in the general population. Evidence shows comorbid depression and diabetes is associated with poorer glycemic control, higher costs, and increased risk of all-cause mortality. However, little is known about the prevalence and correlates of depression in African Americans with diabetes.

The objective of the current study was to examine the predictors of depression symptoms at baseline in a sample of 211 low-income African American adults with uncontrolled Type 2 diabetes mellitus (T2DM; A1C ≥ 7.0) enrolled in the Lifestyle Improvement through Food and Exercise (LIFE) study, a randomized controlled trial evaluating the effectiveness of a culturally-tailored community-based group intervention to improve diabetes self-management. Depression symptoms were measured using the Patient Health Questionnaire-9 (PHQ-9). The population was 70% female, mean age of 55 (SD=10) years old with 13 (SD=2) years of education. Twenty-eight percent (N= 60) were classified as moderately to severely depressed (PHQ-9 score ≥ 10).

Out of 25 potential predictor variables, 11 variables were selected for further analysis based on their association with PHQ-9 scores (p < 0.20). While controlling for age, gender, and BMI, backwards selection regression analysis revealed that moderate to severe depression symptoms were associated with female gender (β=1.31, p=0.01), hypoglycemia (β=1.06, p=0.03), perceived stress (β=0.19, p < 0.01), self-rated health (β=0.77, p=0.03) and PTSD symptoms (β=2.1, p < 0.01).

This study identified three modifiable variables associated with depression symptoms in a population of low-income African Americans with uncontrolled T2DM. Interventions addressing stress, PTSD and hypoglycemia may prevent or reduce depression symptoms among African Americans with T2DM, thereby potentially reducing the additional cost and negative health impact associated with depression in this high risk population.

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TASK COMPLETION, FAMILY FUNCTIONING, AND DISEASE MANAGEMENT IN ADOLESCENTS WITH POORLY CONTROLLED TYPE 1 DIABETES

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Teen management of type 1 diabetes (T1D) requires the completion of multiple daily tasks, including self-monitoring of blood glucose (SMBG) and insulin dosing (Atkinson et al., 2014). General task completion ability, i.e., the behavioral process by which individuals finish or complete tasks appropriately and on time, likely is associated with T1D management and also might be associated with T1D family functioning. For example, youth that struggle with task completion likely require intensive parental supervision to complete T1D tasks, which might engender family conflict. This study examined how task completion ability was associated concurrently and over time with T1D outcomes and T1D family functioning. Participants included 59 teens with poorly controlled T1D (M Age=14.8, 40% female) participating in a RCT of a multi-component intervention. Teens completed the BRIEF Task Completion scale (Gioia et al., 2000) and parents the Parental Monitoring of Diabetes Care (Ellis et al., 2012) and Diabetes Family Conflict (Hood et al., 2007) scales. All measures were completed, and SMBG and HBA1c were assessed, at baseline and 6 months later. Cross-sectional correlations at baseline (n=59) showed that poorer task completion was associated with greater family conflict on direct management tasks (r=-.35, p=.01), less direct parental monitoring (r=-.36, p=.01), and higher HbA1c (r=.31, p=.02). Longitudinal analyses with pre/post change scores included the 29 teens (M Age=14.8, 44.8% female) receiving usual care. Poorer task completion at baseline predicted deteriorating T1D outcomes, decreasing frequency of SMBG (r=-.40, p=.05) and increasing HbA1c (r=-.43, p=.03), and changes in family functioning consistent with parental deterioration, decreasing monitoring via parental solicitation (r=-.42, p=.03) and decreasing direct family conflict (r=-.50, p=.01). Interventions targeting executive functions that underlie behavioral task completion processes (e.g., training working memory, planning, inhibitory control) and task completion directly (e.g., incentives for SMBG followed by accurate insulin dosing) may improve both family functioning and T1D health outcomes.

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ONLINE SUPPORT FOR GRIEF IMPROVES HEALTH BEHAVIORS AND REDUCES MENTAL HEALTH PROBLEMS IN WIDOWERS

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Bereaved people who fail to acquire new skills or maintain their social and health behaviors in widowhood are at increased risk for long-term mental and physical health problems (Carr et al., 2000). Social support and grief education can ameliorate some of these outcomes (Caserta, Lund, & Obray, 2004; Dominick et al., 2009). However, barriers (e.g., location, access to transportation, and stigma) may prevent older individuals from attending support groups. Therefore, the present feasibility study brought the support group into the home through an online, real-time, interactive virtual support group with other widow/ers. We examined the efficacy of an 8-week virtual support group format for widow/ers to reduce perceived stress, loneliness, yearning, depression, and grief, and create healthier behaviors (regular sleep and lower alcohol consumption) compared to an active control website group that completed readings on grief. Twenty-eight participants (mean age = 67.0, SD =11.0) who had experienced the death of a spouse in the past three years participated in this study (virtual support group n = 16; active control website group n = 12). Participants completed psychological measures (Perceived Stress Scale, UCLA Loneliness Scale, Yearning in Situations of Loss, Geriatric Depression Scale, Inventory of Complicated Grief, Pittsburgh Sleep Quality Index) and reported their average weekly alcohol consumption at pre-intervention, post-intervention, and 2 months post-intervention. Participants in both groups showed significant reductions in perceived stress, loneliness, yearning, and improvement in sleep across time points (p < .01 to .05). However, only widow/ers in the virtual support group showed a significant improvement in depression [F(2,44) = 7.23, p < .01] and grief severity [F(2,46) = 3.83, p < .05] across time points and a reduction in alcohol consumption from pre- to post-intervention [F(1,18) = 4.04, p = .06]. This result may be due to the specific discussion of emotion regulation and health behaviors throughout the virtual support group including personal feedback on how to improve these aspects of their lives. Additionally, qualitative reports indicate that some of these participants would not have attended in-person grief support groups. This study demonstrates the feasibility and preliminary efficacy of an accessible and low cost online support format for widow/ers.

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ONLINE TREATMENTS FOR MOOD AND ANXIETY DISORDERS IN PRIMARY CARE: MAIN OUTCOMES

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Background: Numerous trials have demonstrated the effectiveness of care manager-guided “collaborative care” (CC) strategies for treating depression and anxiety in primary care. Yet for a variety of reasons, CC has not been widely implemented. Embedding computerized cognitive behavioral therapy (CCBT) together with an Internet support group (ISG) that facilitates the exchange of self-help information and emotional support within a CC program could enable effective care to be provided at scale and at low-cost, but the effectiveness of this strategy is unknown.

Methods: We screened depressed and anxious patients aged 18-75 referred by their PCP from one of 26 Pittsburgh-area practices to our Trial and randomized consenting patients who scored PHQ-9 and/or GAD-7 ≥10 to either: 1) their PCP’s usual care (UC); 2) 6-month of care manager-guided access to the proven-effective Beating the Blues program (CCBT); or 3) CCBT plus password access to our ISG (CCBT+ISG). Blinded telephone assessors administered the SF-12 mental component scale (MCS) and the PROMIS Depression and Anxiety short forms to measure health-related quality of life, mood, and anxiety symptoms, respectively.

Results: Between 8/12-9/14, we randomized 704 patients (101 UC, 301 CCBT, 302 CCBT+ISG) mean age: 42, female: 81%, mean PHQ-9: 13.5; mean GAD-7: 12.6. Compared to UC at 6-months, CCBT patients reported no improvement on the SF-12 MCS (Effect size (ES):0.15; P=.15) but decreases in mood (ES:0.31; P=0.006) and anxiety symptoms (ES:0.26; P=0.003) that increased when we limited analyses to those who completed at least 4 (ES mood:0.41; ES anxiety:0.34) or all 8 CCBT sessions (ES mood:0.52; ES anxiety:0.49). CCBT+ISG patients reported similar levels of symptom improvements as CCBT patients even after limiting our analyses to various levels of user engagement with the ISG.

Conclusion: CCBT can be effectively delivered at scale to depressed and anxious primary care patients within the context of a CC program. However, access to our ISG did not confer any additional benefit on patients’ mood or anxiety symptoms.

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PANIC AND ASTHMA: ROLES OF DIAGNOSIS, SYMPTOM CONFUSION, AND RESPIRATORY SYMPTOMS

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Introduction: Asthma and panic disorder (PD) comorbidity has been repeatedly documented. It has been hypothesized that PD may negatively affect asthma outcomes by influencing symptom perception, asthma management behaviors, and respiratory patterns. A respiratory subtype of PD may increase confusion between asthma and panic symptoms. Objectives: This study examined relationships between PD and asthma severity, control, and quality of life; in addition, it considered roles for asthma-panic symptom confusion (APSC) and cardiorespiratory (CR) panic symptoms. Method: A sample of Latino adults were recruited from Bronx, NY hospitals and assessed for the following: pulmonary function; asthma severity, control, and quality of life; PD; APSC; and depressive symptoms. Fifty-nine participants met criteria for both asthma and PD, and 22 for asthma only. Data were analyzed by logistic and linear regression models. Results: Presence of PD predicted greater odds of moderate/severe asthma despite no group differences in pulmonary function. Only the quick-relief medication use component of asthma severity varied between groups. High rates of CR panic symptoms were found, and these predicted more APSC and severe asthma. Additionally, APSC predicted greater activity restriction. Finally, rates of agoraphobia and depressive symptoms were notably elevated in this sample. Conclusions: These results support a cognitive relationship between asthma and PD whereby PD alters the subjective experience of dyspnea, in turn affecting asthma management. Individuals with PD who mistake CR panic symptoms for asthma may restrict their activities more than necessary; additionally, they may report more asthma symptoms, potentially altering provider perceptions of asthma severity and treatment planning. Elevated rates of agoraphobia and depressive symptoms could present additional challenges to asthma management. Clinicians treating asthma may want to consider screening for PD and depression, limit the use of self-report measures for guiding treatment, and identify dysfunctional respiratory patterns. These findings lend support to the use of cognitive-behavioral therapy and breath retraining for the treatment of comorbid asthma and PD.

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PERCEIVED PHYSICAL DISABILITY AS A PREDICTOR OF SUICIDAL IDEATION IN POST STROKE DEPRESSION

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Objective: Rates of depression are twofold in stroke survivors than in the general population. Post stroke depression (PSD) patients are likely to experience comorbid cognitive impairment and physical disability. Past studies argue physical disability in particular is a potential risk factor for suicidal ideation (SI). Yet few studies have examined the relationship between perceived physical disability (PPD) and SI in PSD patients treated for depression. Method: 30 PSD participants (mean age=69 years, range=52-88; 50% female) were administered the 24-item Hamilton Depression Rating Scale (HAM-D) for the assessment of depression and SI; disability, including PPD, was measured using the Stroke Impact Scale (SIS); and hopelessness was measured using the Beck Hopelessness Scale. Assessments were conducted prior to a 12-week course of psychotherapy for depressive symptoms, with a follow-up assessment at 24 weeks. Bivariate correlations among study variables and stepwise linear regression tested if baseline PPD predicted SI at 24-week post-treatment. Results: At baseline, participants’ scores were in the moderate depression range (mean=21.73, SD=7.44), 17 patients endorsed SI, with a mean PPD score of 49.20 (SD=21.06). At 24-week post-treatment, participants presented with mild depression (mean=12.57, SD=6.99), 9 patients endorsed SI, and PPD on average was 53.48 (SD=22.53). At baseline, PPD and SI were not significantly correlated (r=0.133, p=0.500). However, baseline PPD was a significant predictor (b=-0.013, SE=0.006, p=0.045), along with baseline SI (b=0.298, SE=0.006, p=0.026), of SI at 24 weeks, controlling for baseline depression scores. Conclusions: Findings are consistent with the literature on the correlation between PPD and SI. Results indicate that PPD predicts SI six months later, independent of depressive symptoms and even after a course of treatment for depression. This suggests that stroke survivors with high PPD initially after their stroke may be at greater risk of SI in the future, regardless of the presence of other symptoms of depression.

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THE MEDIATING ROLE OF SOMATIC SYMPTOMS IN THE RELATIONSHIP BETWEEN PTSD ONE YEAR AND FIVE YEARS POST-DEPLOYMENT

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The comorbidity of somatic symptoms and Posttraumatic Stress Disorder (PTSD) is well-documented, with indication that somatic symptoms (e.g., pain) and PTSD are mutually maintaining conditions. The aim of this investigation was to understand the role of somatic symptoms in the longitudinal maintenance of PTSD symptoms among deployed service members. Data were collected from a subset of a prospective, longitudinal, observational cohort of combat-deployed Army National Guard and Reserve personnel assessed at five phases, including one year and five years post-deployment (n=132; 85% male; Mage=38). Measures included the PTSD checklist (PCL) and the somatic symptom scale of the Patient Health Questionnaire. At one year post-deployment, 15.9% had a PCL>50. At five years post-deployment, 15.4% had a PCL>50. Initial regression analyses revealed that one year post-deployment PTSD symptoms significantly predicted five year post-deployment PTSD symptoms (b=0.69, SEb=0.07; 95%CI [.56, .82]; t=10.37, p < .001). One year post-deployment PTSD symptoms and somatic symptoms were significantly related (b=-0.22, SEb=0.02; 95%CI [-.29, -.15]; t=14.98, p < .001). Likewise, these somatic symptoms were significantly predictive of five year post-deployment PTSD symptoms (b=1.72, SEb=.22; 95%CI [1.29, 2.15]; t=7.99, p < .001). When somatic symptoms were added to the initial model, the predictive ability of one year post-deployment PTSD symptoms weakened (b=.55, SEb=.09; 95%CI [.36, .73]; t=5.92, p < .001). Using Hayes’ (2013) SPSS process tool, we confirmed these results, indicating somatic symptoms were a significant partial mediator of later PTSD symptoms (b=1.4, 95%CI [.01, .28]; r²=.14, 95%CI [.02, .26]). Findings suggest somatic symptoms are important in the maintenance of PTSD five years after deployment. Implications include early assessment and ongoing clinical management of somatic symptoms in post-deployed veterans with PTSD.

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WEARABLE DEVICES AND SMARTPHONES FOR ACTIVITY TRACKING AMONG PEOPLE WITH SERIOUS MENTAL ILLNESS

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Introduction: People with serious mental illness, including schizophrenia spectrum disorders and mood disorders, are more physically inactive than people from the general population. These individuals experience elevated cardiovascular risk, which contributes to significantly reduced life expectancy when compared to the general population. Emerging wearable devices and smartphone applications afford opportunities for promoting physical activity in this at-risk group. This exploratory mixed methods study obtained feedback from participants with serious mental illness to assess the acceptability of using wearable devices and smartphones to support a lifestyle intervention targeting weight loss.

Methods: Participants with serious mental illness and obesity enrolled in a 6-month lifestyle intervention were given Fitbit activity tracking devices and smartphones to use for the study. Data on participants’ daily use of the devices was collected over the duration of the study. Participants also completed quantitative post-intervention usability and satisfaction surveys, and provided qualitative feedback regarding acceptability of using these devices and recommendations for improvement through in-depth interviews.

Results: A total of 35 participants wore Fitbits for an average of 86.7% (SD=18.3%) of the days enrolled in the study, with a median of 94.4% of the days enrolled (interquartile range = 82.6-97.4%). Twenty-nine participants wore their devices for over 80% of the days enrolled in the study. Participants were highly satisfied, stating that the devices encouraged them to be more physically active and were useful for self-monitoring physical activity and reaching daily step goals. Some participants experienced challenges using the companion mobile application on the smartphone, and recommended greater technical support, more detailed training, and group tutorials prior to using the devices.

Discussion: Participants’ perspectives highlight the acceptability of wearable mHealth technologies for health promotion among people with serious mental illness, and offer valuable insights for informing future research to assess the effectiveness of these devices for improving health outcomes in this at-risk group.

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WEIGHT SELF-STIGMA AND INTERNALIZING SYMPTOMS IN EMERGING ADULTS WITH OVERWEIGHT OR OBESITY: EXPLORING RACE AS A MODERATOR

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Objective: Among emerging adults with overweight or obesity, depression and anxiety may influence engagement in healthy weight-loss strategies. While internalized stigma about one’s own weight (i.e., weight self-stigma) has been associated with depression, less is known about its impact on anxiety. Few studies have explored how race might differentially impact these associations.

Methods: Participants were 108 18-25-year-old university students with overweight or obesity (73% female, 67% Black, 33% White). Body Mass Index (kg/m²) was calculated from measured height/weight. Participants completed the Weight Self-Stigma Questionnaire, Center for Epidemiologic Studies Depression Scale, and Generalized Anxiety Disorder Scale. Using PROCESS, moderation analyses with bootstrapping examined race as a moderator in the association between weight self-stigma and depression/anxiety symptoms. Covariates were age and gender.

Results: The covariate-adjusted moderation model predicting anxiety symptoms (F(5,101)=9.08, p < .001, R²=.37) was significant. The interaction between race and weight self-stigma was also significant (p=.02). At low levels of self-stigma, Black and White emerging adults had similar levels of anxiety, but as weight self-stigma increased, White participants had higher anxiety symptoms than their Black peers. When predicting depression symptoms, the overall model (F(5, 101)=5.57, p < .001, R²=.26) and the main effect of weight self-stigma (p < .001) were significant, but the interaction between race and weight self-stigma was not.

Conclusions: Black emerging adults may have unique cultural strengths that are protective against anxiety despite experiencing self-stigma. Future studies should explore the underlying cultural beliefs and practices that may contribute to positive mental health in emerging adults with overweight or obesity and adapt these factors for interventions.

Learning Objectives: 1) Describe the impact of weight self-stigma on mental health of emerging adults with overweight/obesity; 2) Discuss the influence of race in the association between weight-related self-stigma and anxiety

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Increasing numbers of U.S. military service members have utilized mental health care while deployed and at home station. However, mental health care resources continue to be underutilized, potentially due to higher levels of stigma regarding mental health care and concerns about career impact among service members with mental health symptoms. This study examined the associations between number of prior deployments, prior mental health treatment, and subsequent career impacting recommendations (e.g. duty limitations; medical evacuation) among deployed service members seeking or referred to mental health care. Data were drawn from the mental health records of 1,639 Army service members presenting for outpatient mental health services while deployed in Afghanistan from years 2006-2008. The sample ranged in age from 18-58 years (Mean age = 27 years) and was 84% male, 50% married, 91% enlisted, 77% Regular Army (16% Guard; 7% Reserve), and 39% had at least one prior deployment. In an unadjusted logistic regression model, service members with at least one prior deployment had a 38% greater odds (OR=1.38, 95% CI 1.06, 1.80; p < .05) of receiving career-impacting recommendations than those without a prior deployment. After adjusting for age, gender, marital status, rank, and military status, there was no association between prior deployments and career-impacting recommendations (OR=1.06, 95% CI 0.78, 1.43; p = .716). In the second unadjusted model, service members with prior mental health treatment had a 57% lower odds (OR=0.43, 95% CI 0.34, 0.56; p < .001) of receiving career-impacting recommendations than those without prior mental health treatment. After adjusting for age, gender, marital status, rank, military status, and number of prior deployments, service members with prior mental health treatment had a 58% lower odds (OR=0.42, 95% CI 0.33, 0.56; p < .001) of receiving career-impacting recommendations than those without prior mental health treatment. Among service members who had a clinical mental health encounter, prior deployment was not associated with career impacting recommendations and prior mental health treatment appeared to be protective against career impacting recommendations.

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INDIVIDUAL AND CONTEXTUAL FACTORS ASSOCIATED WITH TEEN SUGAR-SWEETENED BEVERAGE AND JUNK FOOD INTAKE

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Objective: Sugar-sweetened beverages (SSB) and energy dense/nutrient poor food (“junk food”) can contribute to obesity among teens. Multiple levels of the Social Ecological Framework influence intake, but few studies include contextual variables or examine interactions between levels. We examined the role of psychosocial factors and teen perceived home and school food environments on SSB/junk food intake. Methods: Data were collected in 2014 from U.S. teens aged 12-17 in the NCI Family, Life, Activity, Sun, Health and Eating Study (n=1527). SSB/junk food intake frequency was derived from a 27-item dietary screener. Self-efficacy (1 item), autonomous and motivational control to limit SSB/junk foods (mean of 2 items each), and perceived norms about friends’ SSB/junk food intake (1 item) were included in separate regression models. Perceived home availability of SSB, sweet, and salty snacks, and perceived convenience store and fast food restaurant availability near school were included in all models. Gender, age, race/ethnicity, weight status, and parent education were controls. Interaction terms examined moderation between school food environment and behavioral constructs. Results: Teens consumed SSB/junk food almost 3 times daily (mean 2.8, SD 1.9). Greater self-efficacy and autonomous motivation for limiting SSB/junk foods were negatively associated with intake (B=-0.08, p < 0.0001, and B=-0.10, p < 0.0001, respectively). Greater perceived norms was associated with increased intake (B=0.07, p < 0.0001). In all models, more frequent home availability of SSB, sweet, and salty snacks, and perceived convenience store availability near school were associated with greater SSB/junk food intake frequency. Interactions between the school food environment and behavioral constructs were not significant. Conclusion: Psychosocial factors and perceived home and near school food environments were associated with teen SSB and junk food intake. Design of more effective interventions aimed at reducing obesogenic diets may require greater focus on environments.

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D080c 10:15 AM-11:15 AM

MORE THAN JUST FOOD: A META-ANALYSIS ON FAMILY MEALTIME PRACTICES AND CHILDREN’S NUTRITIONAL HEALTH
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Family meals can be called the cradle of eating behavior: by the age of ten, a child has eaten about 10,000 meals, most of them in a family setting. The goal of this meta-analysis was to reveal potentially protective practices that could explain why frequent family meals foster children’s nutritional health (i.e., body mass index and diet quality). No randomized controlled studies on potential family meal practices and nutritional health in children are available. We conducted a systematic review and identified seven mealtime practices frequently investigated in the context of children’s nutritional health. We ran separate meta-analyses and found the following consistently positive associations for all family mealtime practice and nutritional health: parental role modeling, children’s involvement, positive atmosphere, meal quality, TV off, and meal duration, frequent family meals. On the basis of the identified practices we build on and extend Herman et al.’s mechanisms on how the presence of others shapes eating behaviors (e.g., Herman et al., 2003). We discuss the generalizability of the identified protective mealtime practices to other social contexts and potential policy implications.

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D086a 10:15 AM-11:15 AM

TRANSLATING RESEARCH TO PRACTICE IN SCHOOL CAFETERIAS BY ENGAGING CHILD NUTRITION STAFF TO STRENGTHEN THEIR SCHOOL MEAL PROGRAM
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Objective: Evaluate the feasibility of the FAV5 project, which aims to strengthen their school meals program by increasing appeal of school meals, increasing participation in the school meals program, and improving relationships within Child Nutrition Staff (CNS) and their schools.

Methods: We engaged the Child Nutrition Director and managers at 7 elementary schools in a rural North Carolina county to develop and implement the FAV5 project. Together we planned and conducted taste test events where all K-5th grade students in the 7 schools. CNS also received culinary training consultation to help managers incorporate Smarter Lunchroom best practices, communicate with principals and other staff at the school to plan for taste tests, and elicit support for other changes (e.g., innovative breakfast service) for their school meal program.

Results: At least 11,241 samples were distributed to 3,747 elementary students during taste test events. In total, sixty-two percent of students reported liking the three recipes that were sampled, and 57% said they would try them again. The Child Nutrition Director is planning to incorporate the new items into school menus and managers are considering conducting taste test events each month. Twelve CNS completed baseline and follow-up surveys to date. CNS reported improved relationships among their teams and within their schools (baseline score for CNS relationships = 19.31 and within school relationships= 21.69; follow-up score for CNS relationships = 20.92 and within school relationships = 22.75), though the change was not statistically significant (within CNS team relationship change = 1.61, p=0.145; within school relationship change = 1.06, p=0.345).

Conclusion: Engaging CNS to plan and implement taste test events in schools is feasible and may improve relationships within their teams and within their schools. Students liked sampled recipes and would try them again, indicating that conducting taste test events may be a useful strategy when considering additions to school menus.

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D093a 10:15 AM-11:15 AM
SCOPING REVIEW OF VIRTUAL HEALTH COMMUNITIES AS STANDALONE OR ADJUNCT INTERVENTIONS
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Introduction: A 2004 systematic review found insufficient evidence to draw conclusions about the effectiveness of virtual health communities (VHC). Since then, social media has led to an explosion in VHCs, in which people connect with peers to learn and exchange information and support.

Objective: To perform a scoping review following the Arskey and O’Malley framework to determine the nature and extent of primary research on the effects of VHCs.

Methods: We searched Medline from 2004 to December 2015, and hand-searched articles in JMIR to identify evaluations of any kind of the effects of VHCs. This yielded 6,327 citations. JLB and ASM independently scanned the title and abstracts of 100 citations for eligibility. Inter-rater agreement was high (Kappa=0.72, p< 0.001). ASM completed the eligibility scan. JLB reviewed the resulting set of articles for inclusion and classified articles  using pretested extraction forms.

Results: We found 181 individual studies and 22 reviews. The majority of reviews lumped standalone VHCs with multicomponent interventions making it impossible to draw conclusions about the effects of VHCs alone. Three reviews investigated the effects of standalone VHCs on depression, youth with mental health problems, and weight management, and found mixed results. None explored the attributes of VHCs that might explain their effectiveness. Individual studies evaluated VHCs as multicomponent (n=82), standalone (n=91), or adjunct interventions (n=8). Standalone or adjunct interventions (n=99), mainly targeted cancer (n=29) or mental, behavioural or neurodevelopment conditions (n=25), and were evaluated using cross-sectional surveys (n=38), RCTs (n=23) or pre-post designs (n=22). Most common primary outcomes for these studies were perceived effects (n=31), anxiety (n=20) or depression (n=18). Reporting of the nature and extent of moderation was poor.

Conclusions: Given the popularity of VHCs and the growth of primary research in the field, there is a need to update the evidence on the effectiveness of VHCs as standalone or adjunct interventions, including how they work, for whom and under what conditions.

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D088a 10:15 AM-11:15 AM
WHOLE GRAIN AND LOW-FAT MILK CONSUMPTION AMONG WIC PARTICIPANTS IN SOUTHERN STATES: A COMPARISON STUDY
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Background: In an effort to improve the dietary intake of mothers, in 2009 policy changes were implemented for low-income women participating in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Studies have found that diets rich in whole grains may diminish the risk of chronic diseases such as Coronary Heart Disease, Type II Diabetes, and various forms of cancer.

Purpose: The purpose of this study was to compare differences in grain consumption between white and black mothers, pre and post WIC intervention in states with high rates of obesity and Type II diabetes.

Methods: In this cross sectional study, 7703 mothers participating in WIC programs in 8 southern states were analyzed at baseline, one week and four weeks.

Results: There was a statistically significant difference in grain consumption pre and post WIC revision between AA and Caucasians. AA consumed higher amounts of whole grain pre and post WIC than Caucasians (p.000). However, low-fat milk consumption was more frequently consumed by Caucasians pre and post WIC than AA (p.000).

Discussion: As of 2010, roughly 55% of the United States’ black population resided in the south (United States Census Bureau, 2011). Accordingly, southern states are of particular interest in the study of health disparities. Lessons learned from this study may be used in future interventions.

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THE ASSOCIATION BETWEEN USE OF A COMMUNITY PHARMACY’S MOBILE PILL REMINDER APP AND MEDICATION ADHERENCE

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Background: Research has demonstrated the linkage between patient forgetfulness and non-adherence to medications. A national community pharmacy offers a digital health platform that integrates a pill reminder in its mobile device application. Reminders are customizable based on individual needs and medication schedules.

Objective: To determine the relationship between the use of Walgreens pill reminder and adherence to oral antidiabetics (anti-DBs), antihypertensives (anti-HTNs), and antihyperlipidemics (anti-HLs).

Methods: This retrospective cohort study compared patients who used the reminders and had ≥ 2 fills of anti-DBs, anti-HTNs, or anti-HLs between January 2014 and September 2014, to a 5% random sample of pharmacy patients who did not use the feature during the same period (Controls). Adherence was measured using Proportion of Days Covered (PDC) and calculated over a 12-month period from each patient’s first prescription fill date. Optimal adherence (OA) was determined by PDC ≥ 80%. Multivariable logistic regression was used to assess the odds of optimal adherence, adjusted for demographic and drug utilization differences across groups.

Results: Of the 128,799 pill reminder users who met the study inclusion criteria, 33,260 (25.6%), 85,281 (66.2%) and 68,508 (53.2%) were on anti-DBs, anti-HTNs, and anti-HLs respectively compared to 93,309 (15.3%), 285,903 (46.9%), and 245,358 (40.2%) of 609,203 controls who met the criteria. Pill reminder users were older, more likely female, had higher socioeconomic status, and higher chronic drugs utilization compared to controls. Pill reminder users had significantly higher adherence (anti-DBs: (PDC ∆=8.2%, P < 0.001; % OA ∆=12.3%, P < 0.001); anti-HTNs: (PDC ∆=7.0%, P < 0.001; % OA ∆=11.3%, P < 0.001); anti-HLs: (PDC ∆=5.8%, P < 0.001; % OA ∆=9.1%, P < 0.001)) and were 21.9%, 20.8%, and 14.6% more likely to be optimally adherent to anti-DBs, anti-HTNs, and anti-HLs respectively compared to controls, after controlling for differences across groups.

Conclusions: This study demonstrated that utilization of the Walgreens mobile app pill reminder was associated with significantly higher adherence to medications.

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THE VALIDITY OF A CLINICIAN ADMINISTERED FATIGUE MEASURE IN A DIVERSE PATIENT POPULATION

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Objective: Fatigue is a cluster of symptoms which affects individuals with various disease processes. The definition of fatigue is wavering and varies per disease, disorder, and medical provider. A gold standard measurement tool does not exist to assess fatigue symptoms across patient populations. The most widely used fatigue scales only consist of self-report measures and do not assess fatigue more objectively. Methods: The primary objective was to investigate the psychometric properties of a clinician administered fatigue measure, the National Institutes of Health- Brief Fatigue Inventory (NIH-BFI), across patient populations in relation to fatigue self-report scales and the NIH-BFI. Scales were administered to patients diagnosed with Parkinson’s disease (n=19), functional movement disorder (n=10), prostate cancer (n=5), or a mood disorder (n=11), or were healthy controls (n=16) at the NIH Clinical Research Center. Discriminant and convergent validity of the NIH-BFI was assessed. Self-report fatigue was measured via the Functional Assessment of Chronic Illness Therapy – Fatigue (FACIT-F), Fatigue Severity Scale (FSS), and the Patient Reported Outcomes Measurement Information System – Fatigue (PROMIS-F). Further investigation assessed clinical correlates of fatigue symptoms with mood and anxiety symptoms and perception of global health.

Results: The NIH-BFI was significantly correlated with the FSS (r=.64, p < .001), FACIT-F (r=.77, p < .001), and PROMIS-F (r=.73, p < .001). The HAM-A (r=.52, p < .001) and MADRS (r=.85, p < .001) were positively correlated with the NIH-BFI. Global Mental Health was negatively correlated with the NIH-BFI. Fatigue scores were significantly different between patients and healthy controls (p<.001). CONCLUSIONS: Significant differences between fatigue scores in patients and healthy controls suggest good criterion-related validity. The NIH-BFI was correlated with the FSS, FACT-F, and PROMIS-F which suggests convergent validity. Higher mood and anxiety symptoms were associated with higher symptoms of fatigue. These results suggest limited discriminant validity. Lower scores of Global Mental Health were associated with more severe fatigue. The data suggests substantial, but not complete overlap between a clinician-rated fatigue scale and patient rated scales.

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TOWARD A BIOPSYCHOSOCIAL ECOLOGICAL MODEL OF HEALTH
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Our understanding of health and disease has evolved greatly since Engel's introduction of a biopsychosocial (BPS) model four decades ago. Yet, current BPS conceptualizations typically place individual health at the nexus of mostly unidirectional biological, psychological, and social influences, and generally do not explicitly consider the dynamic relations across the BPS domains and their various levels. Furthermore, the roles of physical environment and social structures related to health are often characterized as somewhat isolated factors that impact the individual, rather than as part of dynamic processes that comprise a global, multiply-determined system that transcends historic BPS boundaries.

Here, an extension of the BPS model is described and illustrated explicitly as an ecological model whereby biological, psychological, and social domains are mutually determined and fluid across multiple levels that are themselves mutually determined and fluid within and between BPS domains. Individual health is thus understood in the broad context of interrelated BPS factors that function as a whole, integrated, and dynamic ecological system that includes the person. As such, wellbeing may be threatened by perturbation or disequilibrium in the smallest (e.g., human & broader environmental microbial) to the largest (e.g., macro environmental) systems.

This model provides a conceptual framework for medicine to progress from the original BPS model in theory, research, and practice within and across the related disciplines by facilitating greater appreciation of the complex, dynamic and myriad influences on health that may otherwise be overlooked, studied within disciplinary siloes, or reduced in overly simplistic ways. More generally, a BPS ecological model may foster, through a range of disciplinary influences, sustainable health-supporting psychological, social, and bio-environmental systems.

An illustration of the BPS ecological model will be provided for attendees to interactively map their empirical and theoretical work in context.

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USE OF RE-AIM TO ASSESS A TYPE I HYBRID TRIAL’S IMPLEMENTATION POTENTIAL IN REAL-WORLD SETTINGS
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Background: We use a Type 1 pragmatic-hybrid design in an ongoing randomized controlled trial (RCT) to evaluate an integrated behavioral intervention (I-CARE) to address comorbid depression and obesity. To examine I-CARE’s implementation potential in real-world settings, we use RE-AIM to assess reach, effectiveness, adoption, implementation, and maintenance at various points in the trial. We report baseline qualitative data from early implementation to identify emerging factors to inform future dissemination. Methods: We conducted 36 interviews with patients and stakeholders, including I-CARE providers (IP), primary care providers (PCP), and system leaders. They answered questions along the RE-AIM framework based on their experience thus far with the intervention. Two analysis team members conducted qualitative content analysis of the de-identified interviews. Findings: We identified several emerging themes along the RE-AIM framework. REACH: PCPs found the recruitment packets and lists of potentially eligible patients helpful, but also had concerns about reaching out to this vulnerable patient group. EFFECTIVENESS: PCPs and IP providers believed the intervention’s integrated approach could improve current practices, including access to mental health services, regular follow-up, and coordinated care. ADOPTION: Stakeholders expressed interest in adoption post RCT, but noted cost-effectiveness, insurance reimbursement, leadership buy-in, and efficient workflow as important factors. IMPLEMENTATION: Patients appreciated the individualized coaching and weekly check-ins, while stakeholders described challenges in coordinating care between IPs and the patients’ PCPs. Conclusion: Conducting early interviews revealed stakeholders’ viewpoints, feedback, and issues particularly salient during early implementation. Later in our evaluation, these findings will help contextualize trial results for speedier dissemination and adoption of I-CARE into real-world settings.

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USE OF TWITTER TO ASSESS VIEWER REACTIONS TO THE MEDICAL DRAMA CODE BLACK

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Background: Research suggests that medical television programs influence viewers’ health-related knowledge, perceptions, and behaviors. However, most of this research has involved cross-sectional data obtained using traditional survey methods. Therefore, we qualitatively analyzed viewer discourse on Twitter related to the current medical drama Code Black.

Methods: We retrieved all Twitter messages (tweets) and meta-data from the Twitter live-stream during the airing of Code Black from 10-11 PM Eastern Standard Time for four consecutive weeks using customized software that filtered by keywords such as “codeblack” and “@CodeBlackCBS.” We then coded a random sample of 250 tweets/episode, for a total of 1000 tweets. Tweets were classified according to standard theory-based variables used in social media content analyses such as overall sentiment, exploration of medical topics, and intention for real-life behavior change due to the program.

Results: The filtered Twitter stream resulted in a total of 10,500 tweets, for a mean of 2,625 per episode. Of the 1000 randomly coded Tweets, 99% were relevant to the program Code Black, and 94% of those originated from individuals not officially affiliated with the show. One theme that emerged was real-life motivation based on the program, such as “#CodeBlack is making want to recertify as a LA County EMT.” Another theme was engagement regarding medical accuracy. For example, “Why is surgery being done in the ICU…@CodeBlackCBS” and “@CodeBlackCBS I know a lot of nurses & Mama does them proud!” The majority of tweets (82%) exhibited positive sentiment.

Conclusions: Examination of tweets during Code Black provides insight into viewer discourse. Available data suggest that Twitter provides a vehicle for program engagement to be extended into real-life discussion and inquiry. Thus, Twitter may be a potential platform for health professionals to disseminate information related to medical storylines. Future research should explore whether Twitter can be used to leverage the impact of programs such as Code Black.

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BIOFEEDBACK INTERVENTION IN PEDIATRIC PATIENTS WITH POSTURAL TACHYCARDIA SYNDROME (POTS)

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Introduction: While many studies have evaluated the impact of biofeedback on patients with chronic pain, no studies have specifically evaluated the impact of biofeedback on adolescent patients with postural tachycardia orthostatic syndrome (POTS). POTS is a type of autonomic dysfunction characterized by chronic fatigue, orthostatic intolerance and postural tachycardia. Patients with POTS may become quite debilitated, often missing school, reducing or stopping extracurricular activities and having difficulty transitioning to independent adulthood. Many of these patients also report significant chronic pain, and thus treatment strategies developed for chronic pain may be helpful in this population as well. Therefore, the objective of this study was to determine whether biofeedback would be an effective treatment component for adolescent patients with POTS.

Methods: Patients included 38 adolescents diagnosed with POTS, ages 12-21, participating in biofeedback within a multidisciplinary chronic pain rehabilitation program. Intervention consisted of individual and group biofeedback sessions including functional activities (e.g., keyboarding, writing, eating) while practicing relaxation techniques. Following IRB approval, pre and post intervention measures were collected on perception of ability to incorporate relaxation principles into activities of daily living as well as increased confidence in their ability to use these strategies while engaged in functional activities.

Results: Participants rated their abilities to incorporate relaxation principles into activities of daily living significantly higher (p < 0.001) at discharge than at admission. Patients also showed a significant reduction in their respiratory rates (p < 0.001). Finally, surface EMG readings were significantly reduced (p < 0.001) following biofeedback treatment. Conclusion: Results suggest that adolescent patients with POTS benefit from traditional biofeedback sessions to learn improved physiological control as well as increased confidence in their ability to use these strategies while engaged in functional activities.

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A NEW INTEGRATIVE MEDICINE SELF-MANAGEMENT PROGRAM FOR VETERANS WITH CHRONIC PAIN

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There is a public health need to safely address chronic pain (CP) in Veterans while reducing reliance on narcotics. We describe a new integrative medicine program for CP within a Department of Veterans Affairs Medical Center and baseline demographic and psychological characteristics of patients. The interdisciplinary Veterans Integrative Pain (VIP) Center teaches low-risk self-management strategies to reduce autonomic arousal and CP interference and increase Veterans’ self-efficacy to self-manage thereby reducing psychological distress and increasing quality of life. At intake, a “training plan” is created to include any of the following: auricular acupuncture; qigong; tai chi; biofeedback; cognitive behavioral therapy for CP and insomnia; mindfulness meditation; anti-inflammatory diet education; and/or eye movement rapid desensitization for CP. Clinical measures were administered before entry into the 6 month-long program [Patient Health Questionnaire-9 (PHQ-9); Beck Depression Inventory-II (BDI-II); Beck Anxiety Inventory (BAI); Pain Catastrophizing Scale (PCS); Pain Outcomes Questionnaire (POQ); and Quality of Life Inventory (QOLI)]. From April-December 2015, 160 patients were enrolled. 84 completed the full intake battery (85% male; mean age = 53 years, SD=13). Pain-specific rating scales, including the PCS (M=28.00, SD=13.37) and POQ (M=91.55, SD=37.60), were clinically elevated and consistent with expectations for Veterans entering treatment for CP. Total scores on the QOLI (M=37, SD=2.17) indicated lower than average satisfaction with major life roles and activities. Moderately severe symptoms of depression were reported on the BDI-II (M=24.52, SD=13.48) and PHQ-9 (M=12.67, SD=8.31) as was clinically significant anxiety on the BAI (M=22.77, SD=12.71). Evaluation of the baseline characteristics of this sample aids in tailoring treatment plans to Veteran needs and provides an empirical basis to prioritize integrative medicine approaches to CP management. This data-driven approach is sorely needed in the burgeoning area of integrative medicine for CP.

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Cogniphobia associated with visual aura, headache-related disability, and male gender in adults with migraine

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Migraine is prevalent and disabling. Perceived cognitive difficulties may lead to disability. Sensory changes preceding migraine episodes (aura) have been associated with reduced cognitive performance. Cogniphobia, the avoidance of thinking due to fear of head pain, may contribute to reduced cognitive performance. This study aimed to evaluate the relationship between cogniphobia and migraine characteristics.

This observational survey study was conducted at a specialty headache center in the Bronx, NY. Eighty adults with migraine (mean age 44.95 (SD = 12.65), 87.50% female, 78.95% White, Non-Hispanic, 49.37% with a graduate degree) completed surveys assessing demographics, migraine characteristics, disability (Migraine Disability Assessment [MIDAS]), and cogniphobia (Cogniphobia Scale for Primary Headache Disorders [CS-PHD]). Correlations, t-tests, and chi-squares examined relationships among variables.

On average, participants reported 11.95 (SD = 9.87) headache days in the past month, pain severity of 6.79/10 (SD = 2.00), a MIDAS score of 39.64 (SD = 64.71), and a CS-PHD score of 27.26 (SD = 8.28).

Higher cogniphobia associated with higher headache-related disability, \( p = 0.32, \rho = 0.009 \) and male gender \( (77) = 2.15, p = 0.04 \). Cogniphobia did not associate with age, education, headache days/mo., pain severity, or presence of numbness/tingling. Higher cogniphobia associated with history of visual aura, \( (77) = -2.44, p = 0.02 \), and visual aura in the past month, \( (76) = -2.41, n = 78, p = 0.02 \). Among the 33 participants who reported visual aura, higher cogniphobia associated with a shorter duration of visual aura, \( p = -0.42, n = 33, p = 0.02 \).

Cogniphobia associated with visual aura, headache-related disability, and male gender in adults with migraine. These findings are clinically relevant as they indicate specific headache populations that may experience greater cogniphobia.

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D110f 10:15 AM-11:15 AM

ADAPTIVE RESPONSES TO YOUTH WITH CHRONIC PAIN: PARENT BELIEFS ABOUT CHILD PAIN ACCEPTANCE PREDICT POSITIVE ADJUSTMENT FACTORS

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Research has demonstrated that parent emotions, cognitions, and behaviors can predict psychological and physical functioning among youth with chronic pain. The effect of adaptive parent responses to pain has received less empirical attention in the pediatric chronic pain literature. Preliminary research suggests that parent beliefs about child acceptance of pain are associated with positive psychological outcomes in children with chronic pain. This study examined the reliability of a measure that assesses parent beliefs about child acceptance of pain and how such beliefs are related to parent and child adjustment factors. Study participants were 87 caregivers of children and adolescents with chronic pain (child demographics: 56.3% White; 72.4% Female; M=14 yrs) who accompanied their children to an interdisciplinary evaluation at a tertiary care pediatric pain clinic. Youth and caregivers completed the Chronic Pain Acceptance Questionnaire (two domains: activity engagement, pain willingness), Pain Catastrophizing Scale, PROMIS measures, and demographic questionnaires, as part of a larger study. Results showed that the internal reliability of the Chronic Pain Acceptance Questionnaire—Parent Report in this sample was \( \alpha = 0.84 \), indicating the scale was internally consistent. Hierarchical linear regression analyses demonstrated that parent beliefs about child pain acceptance was a significant predictor of parent factors: pain catastrophizing (\( \beta = -0.57, P < 0.001 \)), physical health (\( \beta = -0.45, P < 0.001 \)), and mental health (\( \beta = -0.41, P < 0.001 \)); and child factors: pain interference (\( \beta = -0.42, P < 0.001 \)), mobility (\( \beta = -0.35, P < 0.01 \)), and depression (\( \beta = -0.37, P < 0.01 \)). These findings suggest that parent beliefs about child acceptance of pain may be important in explaining variability in parent and child adjustment factors, and may serve as a salient protective factor for children with chronic pain.

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D110e 10:15 AM-11:15 AM

DISORDERED EATING AND OUTCOME AMONG ADOLESCENTS WITH CHRONIC PAIN ATTENDING A PAIN REHABILITATION PROGRAM

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Adolescents with chronic pain (e.g. abdominal pain, migraine) are at risk for physical disabilities, psychological comorbidities, and reduced quality of life. Many adolescents with chronic pain experience disruptions in eating patterns associated with abdominal pain, nausea, and reduction in appetite which may place them at risk for comorbid eating disorders and can interfere with recovery from chronic pain. The purpose of this study is to examine the influence that disordered eating has on treatment outcome in patients with chronic pain participating in a multi-disciplinary pain rehabilitation program. Participants were 315 adolescents (M age=16.06 years, SD=2.24) consecutively admitted into a three week intensive pain rehabilitation program. Upon admission and discharge, adolescents completed self-report questionnaires assessing pain related feelings and thoughts (PCS: Pain Catastrophizing Scale), the degree to which one engages in life activities regardless of pain/willingness to experience pain (CPAQ: Chronic Pain Acceptance Questionnaire), and disordered eating (EAT-26: Eating Attitudes Test). Results indicated that 19.3% (51) patients with chronic pain scored above the recommended cut-off (\( \geq 20 \)) for disordered eating on the EAT-26 at baseline. Individuals scoring above the clinical cutoff on disordered eating showed significantly poorer pain related outcomes at discharge than individuals scoring in the normal range. Given that this study found that disordered eating occurred in nearly 20% of individuals attending a pain rehabilitation program and was associated with a poorer recovery from chronic pain at dismissal, regulating eating patterns should be addressed as part of a comprehensive treatment approach.

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ANTI-NGF TREATMENT REDUCES NOCICEPTIVE MEDIATORS AND REVERSES SYMPTOMS OF CHRONIC NEUROPATHIC PAIN

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Introduction: Nerve growth factor (NGF) has been widely studied by the scientific community for its pro-nociceptive role in chronic pain conditions, and it is characterized as a chemical mediator responsible for the induction and maintenance of these pathologies. Chronic neuropathic pain is characterized by spontaneous burning pain accompanied by allodynia and hyperalgesia, as well as the release of nociceptive substances including Substance P. Anti-NGF drugs have been used to reduce these symptoms in cancer pain, irritable bowel pain and osteoarthritis in both humans and animal models. However, its multiple actions are not fully understood.

Methods: Male Wistar rats (200-220g, 2 months old) underwent induction of neuropathic pain by chronic constriction injury of the sciatic nerve (CCI). Control groups included sham-operated animals (Sham), which underwent the same incision, but without nerve ligation, and Naive animals, which underwent no surgical procedures. Anti-NGF was injected (1 and 3ug, ipl.) in the hindpaw 14 days after surgery and a dose-response curve was performed. Sensory testing included mechanical nociceptive thresholds, thermal hyperalgesia and cold allodynia. In addition, we performed Western blot to detect NGF and Substance P in the sensory ganglia (DRG L4-6) of CCI, CCI with anti-NGF, Sham and Naive animals.

Results: We observed an increase in NGF and Substance P synthesis in the CCI group compared with the control groups. The CCI animals demonstrated a reduction of the nociceptive threshold and increased thermal hyperalgesia and cold allostodynia compared to control groups. After pharmacological treatment with anti-NGF (CCI + anti-NGF), we observed a reduction of hyperalgesia and allostodynia in these animals.

Conclusions: Our results suggest that NGF and Substance P are important factors in the induction and maintenance of neuropathic pain, since their increased levels were observed in the DRG in CCI animals. We also demonstrated the relevance of this mediator as a therapeutic target, since anti-NGF was able to reverse mechanical, cold and thermal hypersensitivity of this pathology. The analysis is ongoing and more results related to Western blot will be presented during the meeting.

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EXAMINING RELATIONSHIPS BETWEEN IMPROVEMENTS IN DIMENSIONS OF PAIN CATASTROPHIZING AND OUTCOMES IN PATIENTS WITH CHRONIC PAIN

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While change in pain catastrophizing has been shown to contribute to improvements in patients receiving care in interdisciplinary pain programs, little research exists examining how changes in the different dimensions of pain catastrophizing uniquely contribute to improvement in outcome. The Pain Catastrophizing Scale (PCS) is a measure of catastrophizing that incorporates three related but distinct factors: rumination, magnification, and helplessness. We examined the unique relationship between changes in the factors of pain catastrophizing and outcome among patients enrolled in an interdisciplinary pain rehabilitation program. Participants included 641 adult patients who completed treatment in the Mayo Clinic three-week Pain Rehabilitation Center program between the years of 2013-2014. Patients completed measures of pain severity, pain interference, physical and mental health related quality of life, depression and pain catastrophizing. Pre- to post-treatment improvements in all measures were detected (p’s > .148, p’s < .05). Preconditions for within groups mediation analyses were met, and hierarchical multiple regressions were performed to examine unique variance in change in pain outcome, QOL and depression accounted for by change in the dimensions of catastrophizing. Results revealed that change in helplessness accounted for significant unique variance in improvement in all outcome variables (β’s: -.240 - .347; p < .05); change in rumination accounted for significant variance in improvement in pain severity, interference and depression (β’s > .148, p’s < .05); and change in magnification accounted for significant variance in improvements in mental health QOL and depression (β’s > .140, p’s < .05). Results suggest that change in helplessness accounted for more unique variance in outcome than change in magnification or rumination. Findings suggest that collapsing the dimensions of pain catastrophizing into a single construct may obscure the unique influence of specific dimensions of catastrophizing on outcome in interdisciplinary pain treatment programs. Treatment approaches that target helplessness may be particularly useful in improving the outcomes of patients with refractory pain conditions enrolled in intensive interdisciplinary treatment.

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D112b 10:15 AM-11:15 AM

INTERNALIZED STIGMA MODERATES THE ASSOCIATION BETWEEN DEPRESSIVE SYMPTOMS AND SICKLE CELL DISEASE PAIN FREQUENCY

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Research shows a significant relation between depressive symptoms and the frequency of sickle cell disease (SCD) pain episodes. A growing literature, however, suggests that psychosocial factors may influence this association. Research about the influence of psychosocial factors on the depression-pain link is limited and none have examined the impact of SCD-specific stigma. We examined whether internalized stigma about SCD moderated the impact of depressive symptoms among 69 adults (50.7% female; mean age = 36.5 years) who attended an outpatient specialty clinic. Participants completed measures of psychological symptoms, internalized stigma, and SCD-related pain episodes and hospitalizations over the past three months. We tested moderation effects using the PROCESS macro for SPSS. In analyses adjusting for hospitalizations, internalized stigma moderated the association between depressive symptoms and SCD pain frequency (β = -102, 95% CI [-.199, -.005]). A significant association between depressive symptoms and pain was observed among individuals low in internalized stigma; this relationship was attenuated at moderate and high levels of stigma. These counterintuitive findings suggest a need to better understand the consequences of negative societal attitudes about SCD, its internalization among adults living with SCD, and its influence on adjustment.

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D112c 10:15 AM-11:15 AM

IS IT IMPORTANT TO ADJUST FOR PHYSICAL ACTIVITY WHEN MEASURING CHRONIC PAIN?

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Measures of chronic pain typically do not account for individuals’ physical activity (PA) levels. Although PA is essential for managing conditions like osteoarthritis (OA), some people may reduce activity to manage their pain. Recent research showed that a PA-adjusted pain measure was more strongly associated with radiographic OA severity than an unadjusted pain measure; these analyzes extend this area of research by examining whether PA-adjusted pain is also more closely associated with key function and quality of life outcomes. In a subset of 140 Veterans (M age=61.8 years, 87.1% male) enrolled in a clinical of group vs. individual physical therapy, we used the Western Ontario and McMaster Universities Osteoarthritis (WOMAC) Pain Scale and calculated four composite pain and activity (WOPA) scores with accelerometer-derived data (step counts, time in sedentary and moderate-intensity activity, and energy expenditure from a minimum four day wear period). Associations of each of four OA-related outcomes (6-minute walk test, satisfaction with physical function, fatigue and quality of life) with the WOMAC pain score and four WOPA scores were examined with partial correlations, controlling for age, gender and body mass index. Significant (p < 0.05) associations were found between all four outcomes and the WOMAC pain score, as well as in 12 of the 16 models including WOPA measures; in all cases greater pain was associated with poorer outcomes. Two of the WOPA measures (adjusted for step counts and energy expenditure) had stronger associations with the 6-minute walk test (partial r’s=-0.29, -0.37) compared to WOMAC pain score (partial r=-0.19). The step-count adjusted WOPA measure also had a stronger association with satisfaction with function, compared to WOMAC pain score (partial r’s =-0.24 and -0.28). Results suggest PA-adjusted pain may add increased outcome-related predictive value compared to simple pain measurement and should be explored further.

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PAIN CATASTROPHIZING PREDICTS PARENTAL PROTECTIVE RESPONSES IN PARENTS OF CHILDREN WITH CHRONIC PAIN
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Literature suggests that parental protective responses to children’s pain are an important construct to understanding maladaptive parental pain management behaviors in pediatric pain populations. Studies have shown that parental protective responses (e.g., limiting a child’s normal activities and responsibilities) negatively influence children’s pain experiences and contribute to their functional disability; therefore, identifying factors that predict maladaptive parental protective responses to children’s pain is important. This study explored the predictive validity of parent pain catastrophizing on parental protective responses to children’s pain in a sample of caregivers of children with chronic pain. The current sample was comprised of 93 caregivers who presented to a tertiary pediatric pain management clinic for an interdisciplinary pain evaluation with their children (child demographics: 58.1% White, 72.4% Female, M =14.0 yrs). Youth and their caregivers completed questionnaires as part of a larger study, including the Pain Catastrophizing Scale, Adult Responses to Children’s Symptoms Scale, PROMIS questionnaires, and demographic questionnaires. Caregivers and children’s pain catastrophizing scores were as follows: caregiver (M = 26.3, SD = 12.0) and child (M= 24.3, SD = 10.8). Controlling for child pain catastrophizing, hierarchical regression analyses revealed a significant overall model \( R^2 = .293, F (2, 86) = 17.82, p < .001 \) wherein parent pain catastrophizing was a significant predictor of parental protective responses (\( \beta = .54, t(90) = 5.76, p < .001 \)). These findings suggest that parent catastrophizing is a salient predictor of parent protective responses towards their child’s pain symptoms. Continued exploration into the relationship between parent pain catastrophizing and parental protective responses to children’s pain may augment recommendations for adaptive parental pain management behaviors and ultimately interventions aimed at increasing children’s functional ability.

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PERCEIVED STRESS AND SICKLE CELL DISEASE PAIN: THE MEDIATING ROLE OF PSYCHOLOGICAL SYMPTOMS
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Perceived stress is associated with both pain and psychological symptoms among adults living with sickle cell disease (SCD). However, little is known about mechanisms that explain these links. The present study examined whether anxious or depressive symptoms explained the relation between perceived stress and self-reported pain frequency among 70 African American adults living with SCD (51.4% female, mean age = 35.6 years). Participants completed standard measures of perceived stress, pain, psychological symptoms, and health care utilization. A multiple mediation analysis using the PROCESS macro in SPSS indicated that psychological symptoms mediated the association between perceived stress and SCD pain frequency, even after adjusting for health care utilization. When depressive and anxious symptoms were excluded from the model, perceived stress was a significant predictor of SCD pain frequency \( b = .143, p = .037, 95\% CI = .009, .277 \). However, when these variables were included, perceived stress was no longer associated with SCD pain frequency \( b = .101, p = .140, 95\% CI = -.034, .235 \). Further, anxious symptoms appeared to be a more robust mediator compared to depressive symptoms \( bs = .044 and -.023, respectively \). These findings support prior studies that highlight psychological factors in explaining SCD pain, but also suggest the clinical utility of distinguishing the components of negative affect that are associated with pain.

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PREDICTING PATIENT FUNCTIONING IN CHRONIC PAIN WITH THE VALUES TRACKER: A TWO-ITEM MEASURE OF ENGAGEMENT IN VALUED ACTIVITIES

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Engagement in valued activities is an important outcome in treatments focused on enhancing quality of life in the context of chronic pain conditions. In particular, interventions such as Acceptance and Commitment Therapy (ACT) have emphasized increasing participation in activities consistent with core values. Although there are several instruments available that assess engagement in valued activities for use in chronic pain populations, the length of these measures can make them difficult to administer frequently and repeatedly in treatment settings. Therefore, there is potential clinical value in developing an assessment that is brief enough to administer at multiple time points during the course of treatment. The purpose of the present study was to conduct a preliminary evaluation of the Values Tracker (VT), a two-item measure of values engagement. Data were examined from 302 chronic pain patients. Participants were largely White European (99%) and most were female (65%), had completed their compulsory course of schooling (68%), and were married or living with a partner (65%). The most common primary diagnoses were fibromyalgia (27%) and arthritis (21%). The duration of pain varied considerably, from three months to 54.7 years (median = 9.3 years). Participants completed the VT at multiple time points during the course of treatment. The analyses were conducted to examine the ability of the VT to predict pain-related functioning after controlling for demographic variables, pain intensity, pain-related distress, and how long lasting these effects will be. Therefore, the findings provide initial support for the utility of the VT in those with chronic pain and are consistent with the theory underlying ACT. Given the VT’s brevity, it may also be useful for tracking changes in engagement in values across sessions.

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PREDICTION ERROR-BASED MODEL FOR ESTIMATING PAIN-RELATED PLACEBO EFFECTS AND THEIR EXTINCTION RATES

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The placebo effect (PE) has many beneficial applications, including decreasing the sensation of pain by inducing positive expectancies in the case of placebo analgesia. Importantly not everyone experiences placebo analgesia similarly: in fact, some individuals do not respond to placebo procedures at all. Moreover, the PE weakens with experience but the rate of this extinction varies depending on many factors, such as how placebo analgesia was induced (e.g. through conditioning, verbal suggestion, and social learning), individual expectancy and pain perception. To our knowledge there has yet to be a model created that can predict how an individual will respond to a placebo analgesic procedure and how long lasting these effects will be. Therefore, the aims for this study were to: 1) predict trial-by-trial pain-related placebo responses, 2) account for when extinction of placebo responses will occur, 3) determine whether an individual will be a placebo non-responder or responder. In order to accomplish these aims, a prediction error-based model of the PE was developed and then applied to test its efficacy by examining the results of two separate human placebo experiments. Both of these experiments used expectancy inducing tactics (or a placebo procedure) that attempted to reduce the sensory perception of a noxious electrical stimulus. The participants provided ratings of the pain they actually experienced and/or the pain they expected to feel during all sessions, including prior to the introduction of the placebo protocol, directly after the introduction of a placebo protocol, and during the extinction phase. The model has successfully accounted for the differences (for both PE and extinction) between the two experiments and how to establish extinction rates in general by estimating the bias of expectancy on pain perception. As for individual variations, findings suggest that subject-by-subject differences in placebo responses can be successfully established by assessing learning rates and pain expectancy biases. The model has implications since it can be included in future placebo studies to determine when extinction will occur and who will respond to placebo procedures.

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THE MEDIATING ROLE OF PAIN ACCEPTANCE IN THE RELATIONSHIP BETWEEN PAIN CATASTROPHIZING AND OUTCOMES FOLLOWING LUMBAR SURGERY

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Chronic pain is often associated with depression, high healthcare costs, and loss of productivity (Breivik, Collett, Ventafrida, Cohen, & Gallagher, 2006). Among the psychological factors that influence the chronicity of pain are pain catastrophizing and pain acceptance. While pain catastrophizing is strongly associated with negative medical and psychosocial outcomes (Sullivan et al., 2001), some people who catastrophize about pain are able to diminish its negative impact on their lives. A mechanism that might explain the relationship between pain catastrophizing and its negative outcomes is pain acceptance (McCracken, Vowles, & Eccleston, 2004). Chronic pain acceptance is defined as one's willingness to experience pain, including its emotional and cognitive elements, and in spite of the pain, continue to live a satisfying life (Reneman, Dijkstra, Geertsen, & Dijkstra, 2010). The primary purpose of this study was to determine if pain acceptance mediated the relationships between pain catastrophizing and post-surgical biopsychosocial outcomes. This was a retrospective-cohort study that involved 101 injured Utah workers (75% male, 94% White, mean age 42.4 years) that underwent lumbar fusion surgery and were assessed at least 2-years post-surgery. Catastrophizing was assessed via the Pain Catastrophizing Scale (PCS) and Pain Willingness was assessed via the Chronic Pain Acceptance Questionnaire (CPAQ). Surgery outcomes included: disability status, back pain related disability (RMDQ), and SF-36 Physical and Mental Health Composite Scores. Results indicated that pain acceptance was a unique predictor of depressed mood (β = .45, p < .001) predicted pain catastrophizing (β = .22, p = .02) and pain acceptance (β = .45, p < .001) accounted for unique variance in the prediction of pain severity. Catastrophizing, but not acceptance, was a unique predictor of depressed mood (β = .45, p < .001). Conversely, acceptance predicted pain-related interference (β = -.43, p < .001), physical health-related quality of life (β = .31, p < .001) and mental health-related quality of life (β = .22, p < .001), whereas catastrophizing was not significant in these models.

Conclusions: Similar to laboratory findings, the current results suggest that pain catastrophizing and acceptance are distinct constructs with different relationships to outcome variables. Although the majority of research on psychological factors in chronic pain has focused on catastrophic thinking, the incorporation of pain acceptance may add substantially to our understanding of chronic pain and related functioning.

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UNIQUE CONTRIBUTIONS OF ACCEPTANCE AND CATASTROPHIZING ON PAIN AND RELATED FUNCTIONING AMONG CHRONIC PAIN PATIENTS

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Background: For the past several decades, pain catastrophizing has consistently been found to be a robust predictor of pain severity, disability, quality of life, and negative affect among patients with chronic pain. Recent research, however, suggests that acceptance of pain may be another important and distinct predictor of pain-related outcomes. For example, laboratory studies utilizing a pain induction procedure (Richardson et al., 2009; 2010) found that pain catastrophizing, but not acceptance, related to pain intensity and negative affect, whereas pain acceptance uniquely predicted pain-related interference on a cognitive task. The aim of the current study is to investigate these relationships among a clinical sample of treatment-seeking chronic pain patients.

Method: Participants were 185 adult patients (49.3 ± 14.8 years of age; 66% women) who enrolled in the Mayo Clinic 3-Week Comprehensive Pain Rehabilitation Program between June-October 2015, and completed survey measures of pain and related interference, depression, pain catastrophizing, and pain acceptance at program admission.

Results: Hierarchical multiple regression analyses indicated that pain catastrophizing (β = .22, p = .02) and pain acceptance (β = -.17, p = .047) accounted for unique variance in the prediction of pain severity. Catastrophizing, but not acceptance, was a unique predictor of depressed mood (β = .45, p < .001). Conversely, acceptance predicted pain-related interference (β = -.43, p < .001), physical health-related quality of life (β = .31, p < .001) and mental health-related quality of life (β = .22, p < .001), whereas catastrophizing was not significant in these models.

Conclusions: Similar to laboratory findings, the current results suggest that pain catastrophizing and acceptance are distinct constructs with different relationships to outcome variables. Although the majority of research on psychological factors in chronic pain has focused on catastrophic thinking, the incorporation of pain acceptance may add substantially to our understanding of chronic pain and related functioning.

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USE OF OPIOIDS AND OTHER PAIN MANAGEMENT STRATEGIES AMONG VETERANS WITH CHRONIC PAIN

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Chronic pain is a major public health problem. Its prevalence is high among Veterans with up to 50% of men and 75% of women Veterans reporting chronic pain. As opioid prescribing for chronic pain has increased, so have concerns about the efficacy and safety of long-term use. Clinical practice guidelines recommend that, when used, opioid therapy, should be prescribed in conjunction with multimodal pain management strategies. Assessing adherence to these guidelines is challenging. The relationship between opioid use for pain and use of other multimodal strategies has not been explored previously. Data for the present investigation were derived from the baseline survey of the Women Veterans Cohort Study which samples recent service Veterans enrolled for VA care. Only respondents who reported pain lasting 3 months or longer were retained (N=460); back (80.1%) and joint pain (80.1%) were most common; average pain intensity was 3.44/10 (SD=1.96).

The sample was 43.7% male, 64.6% White and the average age was 33.76 years (SD=1.96). The sample was 43.7% male, 64.6% White and the average age was 33.76 years (SD=1.96). Approximately 74% of this sample reported using medication in the past week to manage pain; 20.7% reported taking an opioid. A majority (78.4%) used at least one nonpharmacological modality in the past year and almost half (49.0%) reported using 2 or more modalities. On average, 1.9 modalities (SD=1.7) were used to manage pain, including: massage (43.5%), physical therapy (37.6%), exercise (29.4%), chiropractic (23.9%), psychotherapy (20.0%), joint injections (12.7%), spine injections (9.6%), acupuncture (8.5%), and educational classes (8.5%). Veterans using opioids (versus not using opioids) reported higher pain severity (M=4.70 vs. 3.12, t=-7.37, p < 0.001) and greater pain interference (M=2.59 vs. 1.72, t=-4.45, p < 0.001). In this sample, opioid use was related to greater pain and use of nonpharmacological strategies. Future work should examine how these relationships change over time and influence pain-related functioning.

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“EXERCISING IS TOUGH WHEN MY ARTHRITIS IS FLARED”: DO ARTHRITIS FLARE-RELATED COGNITIONS PREDICT EXERCISE?

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Adults struggle to meet evidence-based exercise recommendations for arthritis self-management. Arthritis flares, involving intensified disease symptoms, may challenge exercise participation. According to social cognitive theory (SCT), cognitive factors should predict exercise under the challenging condition of a flare. Higher self-regulatory efficacy to overcome flare barriers (SRE-flare), such as pain, and persistence to exercise in a flare may be two salient factors.

Results: The intervention condition for several variables measured immediately post-intervention including: relevance of intervention, (t(78) = 2.03, p = .05, d = .46), change talk regarding desire to exercise, (t(78) = 1.49, p = .14, d = .34), and intention to exercise, (t(78) = 1.65, p = .10, d = .37). However, we found no difference between the conditions in changes in self-efficacy, stage of change, or exercise minutes after one week (all ps > .50). In addition, both the intervention and control conditions were reported by participants to be tolerable, acceptable, and feasible.

Implications: The results indicate that the intervention leads to changes in some key mechanisms of change. The findings are promising given that it is a pilot study with a single writing session and a limited sample size. Clinical implications and pathways for continued research will be discussed.

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A PILOT MOTIVATIONAL INTERVIEWING-BASED WRITING INTERVENTION TO INCREASE REGULAR EXERCISE

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Background. Motivational interviewing (MI) is a person-centered counseling method that aims to strengthen clients’ own motivation for and commitment to behavioral changes, like increasing regular exercise. Writing interventions have the potential to be less resource-intensive and more cost-effective than typical therapeutic interventions. Currently, there is little research that uses MI-based questions in a disseminable written intervention, and there is no such writing intervention for increasing regular exercise. We conducted a pilot study of a novel writing intervention and examined whether the intervention resulted in changes in key mechanisms of MI and health behavior change.

Methods: Under-active young adults (N = 80) were randomized to either the intervention or expressive-writing control condition. They spent 20 minutes either writing answers to MI-based questions about regular exercise tailored to their stage of change (intervention) or writing generally about their health (control); they then completed post-intervention measures of the key variables.

Results: We found trends and small to medium effect sizes in favor of the intervention condition for several variables measured immediately post-intervention: relevance of intervention, (t(78) = 2.03, p = .05, d = .46), change talk regarding desire to exercise, (t(78) = 1.49, p = .14, d = .34), and intention to exercise, (t(78) = 1.65, p = .10, d = .37). However, we found no difference between the conditions in changes in self-efficacy, stage of change, or exercise minutes after one week (all ps > .50). In addition, both the intervention and control conditions were reported by participants to be tolerable, acceptable, and feasible.

Implications. The results indicate that the intervention leads to changes in some key mechanisms of change. The findings are promising given that it is a pilot study with a single writing session and a limited sample size. Clinical implications and pathways for continued research will be discussed.

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D125b 10:15 AM-11:15 AM

AN MHEALTH INTERVENTION TO ENCOURAGE PHYSICAL ACTIVITY
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Introduction. Physical activity levels decline significantly during the college years. There is a need for pragmatic, scalable physical activity interventions that target major physical activity barriers including limited time and motivation. The purpose of this study was to test the acceptability and efficacy of MapTrek, an m-health game designed to encourage physical activity.

Methods: We recruited 88 participants from a college health sciences course. Participants were required to have a Fitbit activity monitor and smartphone. 44 participants were assigned to the MapTrek intervention and 44 participants were assigned to a control group. MapTrek participants competed in four week-long virtual walking races (geographically situated via Google Maps and Street View), interacting with MapTrek via SMS and a web app on their smartphone. MapTrek participants received a text message every morning which provided them with an update on their race standing, current virtual location (via Google Maps), and physical activity progress. MapTrek participants completed a process evaluation survey after the final race in which they rated various features of the game on a five-point Likert scale (1=Strongly Disagree; 5=Strongly Agree).

Results: The control group decreased average daily steps (10,571 at baseline to 10,014 at week 4) while MapTrek participants increased their average daily steps (10,016 at baseline to 10,602 at week 4). This change, however, was not significantly different (p = 0.375). MapTrek participants reported the MapTrek game was “easy to play” (4.2 of 5.0), “motivated them to keep wearing their Fitbit” (4.0 of 5.0), “motivated them to be more active” (3.5 of 5.0), and “was easy to play in their spare time” (3.5 of 5.0).

Conclusions. Despite not reaching statistical significance, the observed increase in activity is encouraging in such a brief feasibility study, especially given the high baseline activity levels typical of college students interested in exercise science. The positive feedback from participants should help motivate future versions of this web app game.

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D130a 10:15 AM-11:15 AM

AUTOMATICITY AND HABIT FORMATION OF PHYSICAL ACTIVITY AMONG COLLEGE STUDENTS
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Background: Prior research indicates that repetition and automaticity, key aspects of habit formation, are crucial factors in health behavior change. Accordingly, exercise automaticity may play an important role in understanding why less than half of college students meet recommended levels of physical activity (PA). The present study therefore examined the relationship between exercise automaticity and physical activity outcomes among college students.

Methods: Participants were undergraduate students at a large public university in the Northeast participating in a mass survey for course credit (N = 902, Mage = 19 ± 1.2 years, BMI = 23.4 ± 2.4 kg/m², 60.3% female, 69% Caucasian). Frequency and duration of exercise were measured using single-item self-report questions “How many days per week” and “How many minutes per day do you exercise?” Exercise automaticity was measured using the 4-item automaticity version of the Self-Reported Habit Index (SRHI). Items were endorsed on a 7-point scale ranging from 1 = disagree strongly to 7 = agree strongly.

Results: Students reported exercising 3 days/week on average (M=3.2 ± 1.8) and nearly a quarter of students (23%) reported exercising ≤ 1 day/week. Linear regression analyses revealed that exercise automaticity (M=3.5 ± 1.5) significantly predicted BMI (b = -.22, t(900) = -2.5, p < .05) and frequency of exercise (b = .66, t(900) = 21.3, p < .001), and accounted for a significant amount of variance in BMI (R² = .007, F(1,901) = 6.2, p < .05) and PA frequency (R² = 0.3, F(1,901) = 454.6, p < .001).

Conclusion: Our results indicate that higher levels of exercise automaticity predict lower BMI and increased frequency of physical activity among college students. Given that physical activity levels decline from high school to college, college students may significantly benefit from interventions that engender habit formation by promoting increased automaticity to strengthen and sustain healthy behaviors including exercise, obesity prevention, and long-term weight control.

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D135a 10:15 AM-11:15 AM

CAN INACTIVITY ALERT FEATURES IN FITNESS TRACKERS IMPROVE BREAKS FROM SITTING IN OBESE OLDER ADULTS?
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Background: Regularly taking breaks from sitting (BFS) to stand and move could improve health. Many fitness trackers can be set to deliver mild vibration alerts to cue users to move. We tested whether these inactivity alerts could increase BFS among obese older adults, a highly sedentary population.

Methods: We conducted 10 sequential single case experimental ABA trials. Participants (N = 10, Mean Age = 68, Mean BMI = 35) were monitored for a baseline phase (“A”) followed by an intervention phase (“B”). The intervention phase was then removed and participants were monitored to test an experimental effect (reversal “A” phase). Total time in the study was limited to 25 days. The intervention phase (“B”) consisted of providing participants with a Jawbone Up or Pivotal Living band set to provide inactivity alerts every 15 or 20 minutes. Participants were instructed to stand up and walk around for 1-2 minutes when the device vibrated. BFS were measured with the activPAL, the current field gold standard, for the entire study duration. Randomization tests determined whether the difference in BFS was significant between the “B” phase and the two “A” phases.

Results: The average difference between the “B” phase and the mean of the two “A” phases was 6.7 breaks per day indicating that BFS were higher during the intervention phase compared to during monitoring only phases. Seven out of 10 participants had higher BFS during the intervention phase and reduced their BFS in the reversal A phase, suggesting an experimental effect; 3 of these met statistical significance. The combined p-values for all participants was significant (p < .05).

Discussion: Inactivity alert features within several commercially available trackers might result in increases in BFS among older adults with obesity. This suggests some efficacy for intervention studies to include prompting devices to remind participants to regularly break up bouts of sitting. One of the devices was very low cost ($12) which could result in a large public health effect if implemented more widely.

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D135b 10:15 AM-11:15 AM

CIVIC GROUP PARTICIPATION INCREASES PHYSICAL ACTIVITY THROUGH SOCIAL NETWORKS AND RESOURCE AWARENESS
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The purpose of this study was to determine if social networks and resource awareness for physical activity mediate the relationship between civic group participation and moderate-to-vigorous physical activity (MVPA). Data was drawn from a randomly selected sample of 335 Latino men and women (mean age 42.1 ± 16.4) participating in the San Diego Prevention Research Center’s 2009 Household Community Survey. Serial multiple mediation analysis tested the hypothesis that civic group participation influences the size of one’s social network which in turn increases knowledge of physical activity resources leading to meeting national physical activity recommendations of 150 minutes/week of MVPA. Almost half the sample was involved in at least one civic group in the past year. Memberships in religious, health, and neighborhood groups were most common whereas memberships in charities, business, arts, and political groups were least common. The indirect effects of level of civic group participation (ab = 0.009, SE=0.006, 95% CI=0.0010-0.0307) as well as religious (ab = 0.01, SE=0.01, 95% CI=0.0001-0.0469), health (ab = 0.013, SE=0.011, 95% CI=0.0004-0.0522), neighborhood (ab = 0.022, SE=0.017, 95% CI=0.0013-0.0780), or arts (ab = 0.027, SE=0.019, 95% CI=0.0026-0.0847) group participation on meeting physical activity recommendations were significant in models testing pathways through social network size and physical activity resource awareness. The direct effect was only significant for health group (c’ = 0.871, SE=0.363, p=0.016) indicating that belonging to a health group predicted MVPA after controlling for social network size and awareness of physical activity resources. Belonging to civic groups may promote physical activity engagement through social network diffusion of information on community physical activity resources which has implications for health.

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DEVELOPING HABITS WITH WEARABLE FITNESS MONITORS PROMOTES PHYSICAL ACTIVITY

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Developing habits, defined as enduring behaviors that are largely automatic and occur in response to salient cues, has the potential to encourage long-term improvements in healthy behaviors like physical activity. Fitness monitors are increasingly popular but little is known about the utility of these devices for developing habits. Our purpose was to measure habits surrounding use of fitness monitors and determine the impact of habit strength (HS) on physical activity over a 12-week intervention. Fifty-six inactive adults (50% female; age 43.1 ± 9.3) were randomly assigned to receive a fitness monitor only (FM, n=27) or a fitness monitor in combination with information on habits for using the monitor to promote physical activity (FM+, n=29). Average steps/day were measured for a week pre- and post-intervention with a research-grade accelerometer and during the intervention via the fitness monitor. HS for wearing the monitor, checking data on the monitor and using the computer software and mobile app were assessed post-intervention with the Self-Reported Habit Index (SRHI). HS was compared between groups using t-tests and Cohen's d. Partial correlations were calculated between overall HS (composite score for four habits noted above) and steps/day during and post-intervention, controlling for baseline steps/day. Results showed that HS was moderately, but not significantly higher in FM+ for wearing the monitor (d=0.42, p=0.13) and using the computer software (d=0.45, p=0.10) and was not different for checking data on the monitor or using the app (d=0.07-0.21, p>0.05). Partial correlation coefficients between HS and steps/day during the intervention were significant for Weeks 2-12 (r=0.39-0.62, pr<0.05). Using fitness monitors in combination with habit education can promote habit development and increases in physical activity. Interventions employing fitness monitors may be more successful if they encourage habit development around using the monitors to promote activity.

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DO PERCEPTIONS OF CLASSROOM PHYSICAL ACTIVITY BREAKS VARY BY SIZE OF SCHOOL DISTRICT?

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ABSTRACT

Purpose: The purpose of this study was to explore if teachers’ perceptions of classroom PA vary based on district size.

Methods: Sixty teachers from five school districts (1 large public, 3 medium (2 public, 1 private), and 1 small public) took part in a semi-structured interview. Data were analyzed through the process of immersion/crystallization. Results: There were a few key differences between districts. The largest district more often incorporated classroom PA during instruction and incorporated classroom PA 3+ times/day. The medium-sized public districts were most likely to incorporate classroom PA during transitions between subjects and to utilize online video resources (e.g., GoNoodle) compared to other districts who were more likely to incorporate PA during instruction and incorporated more general movement (e.g., stretching). Interestingly, the smallest district and medium-sized private district reported the least amount of teacher collaboration in regards to discussing classroom PA with their colleagues. Additionally, the medium-sized private district thought their biggest barrier to implementation was classroom management. Conversely, all other districts mentioned their biggest barrier was time.

Conclusion: Results provide evidence that teachers have positive views of classroom PA but there are differences on teachers’ perceptions of classroom PA based on district size.

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DOES RECEIVING HERCEPTIN AS PART OF TREATMENT FOR BREAST CANCER IMPACT THE EFFECTIVENESS OF AN EXERCISE PROGRAM?
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Background: Cancer variables may alter the physiologic and psychosocial responses to exercise. This study explored whether taking Herceptin (Trastuzumab) moderated the effects of a 24-week exercise program on cardiorespiratory fitness, grip strength, fatigue, health related quality of life (HRQoL), and depressive symptoms.

Method: Breast cancer survivors Engaging in Activity & Undergoing Treatment (BEAUTY) is an ongoing community exercise program that provides participants with individualized programs of aerobic, resistance, and flexibility exercises, done at home or in a supervised group. Fitness outcomes were measured by a submaximal treadmill test and hand grip dynamometry. Questionnaires assessed fatigue (FACIT-fatigue), HRQoL (FACT-B), and depressive symptoms (CES-D). Paired t-tests examined changes in outcomes from baseline to 24-weeks for participants receiving Herceptin (H) and not receiving Herceptin (No-H). Mixed ANOVA compared differences in changes between (H) vs (No-H).

Results: Participants completed baseline assessments (N=151) and reported if they were receiving Herceptin (N=44, 30.6%). Only those who completed 24-week assessments (N=62) were included in analyses. There were no differences in any outcomes at baseline between H vs No-H (all p>.05). From baseline to 24 weeks, No-H participants significantly improved treadmill time (p2 (pF(1.54)=5.52, p=.022).

Conclusions: HRQoL increased to a larger extent in participants not receiving Herceptin, and may have been related to greater improvements in aerobic fitness. Exercise programs designed to improve HRQoL in breast cancer patients should take into account specific treatment regimens. Future studies are needed to determine whether breast cancer patients receiving Herceptin are less able to adhere to exercise prescriptions, or if there is a physiologic link between Herceptin and reduced cardiorespiratory fitness, and subsequent effects of exercise on HRQoL.

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EVALUATING HISPANIC PATIENTS DESIRE TO RECEIVE GUIDANCE ON PHYSICAL ACTIVITY AND NUTRITION IN A FREE COMMUNITY HEALTH CLINIC
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Background: Low income patients, particularly from Hispanic backgrounds, are disproportionately at risk for chronic health diseases. There has been limited research to determine how Hispanic patients desire to receive guidance about physical activity (PA) and nutrition from their physicians, in order to alleviate their risk. This study explored the attitudes and preferences of Hispanic patients towards receiving guidance on PA and nutrition in a health care setting.

Methods: Ninety six surveys were conducted with adult patients at a free community health clinic, which provides health care to uninsured Hispanic individuals. An electronic survey was administered in Spanish to patients in the clinic reception area to determine their interest in receiving information on PA and nutrition, their interest in programs available to them in the community, and their willingness to participate in these programs if referred by their physician.

Results: Most participants (93%) desired to receive information on PA and healthy eating from their physician. Patients reported that their physicians “always” (64%) or “often” (14%) spoke to them about PA and healthy eating. Patients were open to receiving information via text messaging (39%), instructions from the physician (35%), pamphlets (27%), and emails (27%). Patients indicated being “very likely” (46%) or “likely” (36%) to participate in a program involving PA and healthy eating if referred by their physician. The primary barriers to participation in these programs were time (58%), transportation (41%), location (32%), and family commitments (29%).

Conclusion: Hispanic patients desire information about PA and healthy eating from their physician and are open to receiving it through various methods. More attention should be given towards optimally providing Hispanic patients with this guidance in the health care setting and connecting them to existing programs for further support.

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Exercise dependence (ED) is a term that classifies unhealthy exercise behaviors and attitudes, and is linked to the development and maintenance of disordered eating. However, most of the ED literature is limited to female Caucasian samples. As such, the purposes of this study were to: (a) examine the prevalence of ED symptoms in a large, diverse sample and (b) to evaluate the moderating effects of race and gender on the relationship between ED and disordered eating behaviors. Undergraduate students (N=516, ages 18-30) completed the Exercise Dependence Scale-Revised (EDS-R) and the Eating Disorder Examination Questionnaire (EDE-Q) online. The EDS-R classifies people as exercise dependent, symptomatic, or asymptomatic; and the EDE-Q provides a total score reflecting disordered eating behaviors. Chi-squared tests indicated that college men (n=119) experienced more ED symptoms than college women (n=394, p=.002) and Caucasians (n=340) reported more ED symptoms than African Americans (n=176, p=0.047); gender and racial differences were in the number of symptomatic/asymptomatic (but not dependent) individuals. An ANOVA of the effect of EDS-R category (dependent, symptomatic, asymptomatic) on EDE-Q scores revealed greater ED symptoms were associated with more disordered eating (p < .001); all a priori contrasts between groups were significant (ps < .05). Neither race nor gender moderated the relationship between ED and disordered eating behaviors (ps > .05), suggesting this association holds for Caucasian and African American men and women. This is one of the first studies to directly assess the effects of race and gender on ED prevalence and its association with disordered eating behaviors. These findings provide information on those at risk of engaging in unhealthy exercise behaviors and attitudes, and underscore the importance of ED in the study of disordered eating as it can influence these behaviors across race and gender.

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EXERCISING WITH A PARTNER IS ASSOCIATED WITH INCREASED EXERCISE DURATION AND MORE POSITIVE AFFECTIVE RESPONSE DURING EXERCISE

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Exercising with a partner has the potential to increase rates of exercise behavior. However, the majority of exercise-partner research has been cross-sectional or conducted in controlled laboratory settings. The present study is a secondary analysis examining individuals’ experiences exercising with and without a partner in real time and in their natural environment using ecological momentary assessment (EMA). EMA data was collected from previously low-active (< 60 min/week of structured exercise) overweight (BMI 25-39.9, M=31.93, SD=3.99), but otherwise healthy adults (ages 18-65, M=47.71, SD=11.06) enrolled in an exercise promotion study (N=59). Participants were encouraged to complete 150 - 300 min/week of structured walking. Electronic diaries (IPAQ v111) were used to collect self-report data over six-months including whether or not participants exercised with a partner, the duration of each exercise session, and their affective response to exercise. We predicted that having an exercise partner would be associated with increased exercise time during that session and more positive affective response to exercise. Using a series of longitudinal mixed effects models, we tested the association between (a) the time-varying indicator of exercising with a partner during each exercise session over 6 months and (b) duration of the exercise session and, in separate analyses, affective valence during the exercise session. Models included a random intercept and adjusted for clustering within participant, within day, within week. Results suggest effects of having an exercise partner on duration of the exercise session (b=17.24, SE=.45, p < .01), such that walking with a partner resulted in 17 more minutes per session on average compared to walking alone. Also, having a walking partner was associated with more positive affective response to the exercise session (b=.20, SE=0.06, p < .01). These results suggest that exercising with a partner may be an effective method to increase exercise duration and positive affective response to exercise among overweight adults.

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D150b 10:15 AM - 11:15 AM

EXPERIENTIAL AVOIDANCE MODERATES THE RELATION BETWEEN INTRINSIC ENJOYMENT AND EXERCISE

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Background: Experiential avoidance, which is the tendency to avoid uncomfortable feelings, thoughts, or sensations, may moderate the relation between enjoyment and exercise. Specifically, when enjoyment is low, high experiential avoidance may be associated with an even greater likelihood of no exercise than when enjoyment is high. No studies to date have tested this moderation effect.

Purpose: The purpose of this study was to address two questions: (1) Does experiential avoidance moderate the association between enjoyment and exercise?, and (2) Does the moderation effect depend on how exercise behavior is operationalized?

Methods: We measured experiential avoidance (MEAQ), exercise enjoyment (BREQ), and weekly exercise minutes (IPAQ) in two samples (MTurk [N = 1,044] and college students [N = 364]) using an online cross-sectional survey. We analyzed the data using two-part regression models (binary logistic, gamma) to examine the hypothesized moderation effect on whether people reported zero minutes of exercise versus some (binary portion), and on the amount of moderate-to-vigorous (MVPA) minutes among those who engaged in some exercise (non-zero gamma portion).

Results: Consistent with hypotheses, there was a significant enjoyment x experiential avoidance interaction on the binary portion of the model in both samples (MTurk: z = 1.69, p = .09, university: z = 2.20, p = .03) such that participants high in experiential avoidance and low in enjoyment were more likely to report engaging in zero minutes of exercise. The interaction was not significant for the non-zero portion of the model in either sample (MTurk p = .30, university p = .12).

Conclusion: Results suggest that experiential avoidance moderates the relation between enjoyment and exercise such that it affects the likelihood of not exercising at all but has no effect on the amount of exercise minutes for those who do exercise. Implications include the need to target experiential avoidance in health behavior interventions and to consider operationalizing exercise behavior in two parts.

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D152a 10:15 AM - 11:15 AM

EXPLORING FACTORS RELATED TO DAILY PHYSICAL ACTIVITY ADOPTION AMONG NON-ACTIVE SMOKERS IN THE STEPS TO QUIT TRIAL

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Physical inactivity and smoking both increase disease risk, and are likely to co-occur. We examined factors related to the adoption of daily physical activity in a trial designed to promote low-to-moderate physical activity to manage smoking urges in a sample of underserved, non-active treatment-seeking smokers. Participants (N=101) were randomized to receive either (1) the experimental telebased counseling intervention that combined physical activity and smoking cessation counseling, or (2) standard telebased smoking cessation counseling. Prior to target quit day, each group received 4 weeks of counseling, and attended a quit day smoking cue reactivity manipulation. Primary outcomes included 7-day point prevalence (a) achievement of >7,500 steps per day and (b) vigorous intensity METs at quit day, 1-week, and 1-month follow-up. We examined the relation between theoretically relevant factors and physical activity adoption using multivariable regression models. Participants were mostly overweight, African American, and between 40 and 60 years, with equivalent number of males and females. More participants in the experimental group achieved the primary outcome (a) at the quit day and follow-up points. Multivariable analysis results suggested that participation in the experimental vs. control group (OR 5.41, p=.02) and living with more physically active vs. less active household members (OR 1.48, p=.09) were related to achieving the outcome (a) by the quit day. No other variables (i.e., self-efficacy) were related to physical activity adoption. Quit rates in both groups exceeded 30% at 1-month follow-up. Telebased “Steps to Quit” counseling sequentially promotes daily physical activity adoption and smoking cessation. These results will guide improvements in future multiple health behavior change programming.

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FLOW STATE WHEN OLDER ADULTS EXERGAME USING AN INTERACTIVE PHYSICAL AND COGNITIVE EXERCISE SYSTEM (iPACES©)

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Objective: Dementia diagnoses are rising and although exercise has been shown to be useful in prevention and slowing of cognitive decline (Colcombe et al., 2003), most older adults do not engage in recommended physical activity (CDC, 2013). Exercise behavior is motivated by a variety of factors and one that may facilitate (mediate or moderate) a pattern of activity is “flow,” a pleasurable experiential state when fully engaged and performing at a level that matches the demands of a task (Payne et al., 2011). This pilot study examined whether a novel form of exercise would impact the flow state experience by older adults.

Participants and Methods: The Interactive Physical and Cognitive Exercise System (iPACES© 2013-2015 patent pending) employs physical as well as mental exercise (via virtual reality exergame/bike tour) to engage older adults in activity to promote brain health. The neurogame, Memory Lane©, was first played using only a tablet and game controller, and then fully operationalized as an aerobic neuro-exergame (iPACES©) where an under-table elliptical controlled speed in the game. Using a quasi-experimental AB design, twelve older adults (mean age = 61.75 yrs.) were enrolled and six completed pre- and post-evaluations of two 2-week interventions (neurogame and neuro-exergame/iPACES©). Participants played Memory Lane© (learn errand locations and travel a 3D path) 3-5x/wk for two weeks, and then used an under-table elliptical to control Memory Lane© for two weeks. Flow state was measured after each of the two interventions using the short form (16-item, with 5 subscales; Payne et al, 2011).

Results: Paired t-tests of the five subscales of the flow state revealed that neurogaming yielded a significantly greater sense of concentration (p=.04), while neuro-exergaming led to significantly greater autotelic experience (p=.04).

Conclusions: Findings indicate that flow experiences differ during neurogaming compared with neuro-exergaming (with physical exercise). Autotelic experiences can be motivating in establishing a repeat pattern of behavior and could draw older adults to neuro-exergaming, which would be promising in terms of increasing physical activity and consequently brain health among those that are sedentary.

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D159a 10:15 AM-11:15 AM

AWARENESS OF AIR POLLUTION IN THE CENTRAL VALLEY: CHALLENGES AND OPPORTUNITIES FOR COMMUNICATION STRATEGIES TO IMPROVE HEALTH

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Background: California’s Central Valley comprises approximately 7% of the state’s area, produces 65% of the agricultural produce consumed in the United States, and contains six of the seven most polluted cities in the nation in terms of year-round particle pollution. The confluence of factors that affect air pollution contribute to alarming rates of asthma and other chronic diseases in the region, and these disproportionately affect low-income and ethnic minority populations.

Purpose: We aimed to document and evaluate the existing public sources of information about the causes and controllability of air pollution and its health effects, and potential disparities in information reach and utility.

Methods: We present a case study of air quality communication resources and needs using data from two sources: a systematic analysis of existing communicators and communication strategies and interviews with stakeholders – ten experts in air quality assessment, health risks of air quality, and/or communication of air quality – across the region.

Results: Interviews revealed opportunities for improving communication about air pollution. Four major themes emerged: 1) high quality data is not reaching the public (Dissemination of information); 2) information is lacking efficacy and long term health impacts (Information quality); 3) Access to technology and language barriers (Individual barriers); and 4) Vulnerable groups in need of additional attention (Risk groups).

Conclusion: Results demonstrate significant disparities in understanding traditional methods of communicating air pollution threats to affected populations. Accurate, timely information can be a powerful tool for individual and social change that can mitigate the harmful effects of air pollution. However, lack of efficacy information and restricted access limit benefits of current communication strategies and exacerbate the disproportionate effect of air pollution on low-income and ethnic minority populations.

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D161a 10:15 AM-11:15 AM

COGNITIVE IMPAIRMENT AS A READMISSION RISK FACTOR FOR PATIENTS IN NEPHROLOGY UNITS

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Background: Reducing early hospital readmissions is a pathway to improving patient care while lowering costs. Patients with Chronic Kidney Disease (CKD), particularly End Stage Renal Disease (ESRD), have the highest 30-day hospital readmission rates out of any medical condition in the Medicare/Medicaid population. Research has suggested that cognitive impairment, substance abuse, and health illiteracy contribute to readmission. Yet, there is no established formula for identifying patients who are at “high risk” for early readmission from information in their medical records.

Method: 100 patients (35 with Stage 3 or 4 CKD, 65 with ESRD) were recruited from one nephrology unit in Detroit that serves a predominantly urban, African American population. We recorded the number of times that patients (57% women; M Age= 61.2 years, SD = 14.7 years) had a 30-day readmission over the past year, as well as the presence of variables suggesting that patients have cognitive impairment (history of delirium, positive head CT or MRI, history of seizures, history of hypoxia).

Results: 50 patients had at least one 30-day readmission. The presence of one or more positives on the list of cognitive risk factors (above) was significantly related to the presence of a readmission (χ² = 11.79, p = .001). Early readmission was related to older age (t = 3.52, p = .001) and the presence of ESRD (χ = 9.89, p = .002). Results were replicated on subsets of the sample with a diagnosis of ESRD, and no history of substance abuse (n = 77).

Discussion: Chart review data (cognitive impairment indices, age, and ESRD diagnosis) can be used to identify which patients hospitalized in a nephrology unit are at higher risk for being readmitted to the hospital within 30 days. More research is needed to investigate mechanisms by which cognitive impairment results in repeated hospital admissions. Behavioral and interdisciplinary interventions for improving health outcomes after discharge needed to be tested for CKD patients, especially those with ESRD or cognitive impairment.

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DOCTORS AND NUMBERS: PHYSICIANS’ PERCEIVED NUMERACY ABILITY VERSUS ACTUAL PERFORMANCE.

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Although many studies have examined patients’ objective numeracy and subjective numeracy, much less research has examined physician numeracy. Physician numeracy is important for communicating numeric information to patients and evaluating information about evidence-based medicine. The goal of this study was to assess how well physicians performed on questions from the Berlin numeracy scale, and to assess whether objective numeracy was associated with subjective numeracy in physicians. An online survey was developed by the University of Washington and the American College of Obstetricians and Gynecologists. This report includes four questions assessing numeracy. IRB approval was obtained from University of Washington. 400 members of the Collaborative Ambulatory Research Network. A total of 140 physicians responded, a response rate of 55.34%. Two retired physicians were excluded for a final sample of 138. The majority were females (61.3%). The average age was 53.3 years (SD=10.3), and males were considerably older (m=59.2) than females (m=49.6). Over two-thirds of respondents (71.7%) described their practice as general ob-gyn. When asked the subjective numeracy question, “In general, how easy or hard do you find it to understand medical statistics”, a total of 4.4% indicated very easy, 42.6% indicated easy, 51.5% indicated hard, and 1.5% indicated very hard. On the objective numeracy questions, only 16% answered all three correctly, with 32% answering two correctly, 35% answering 1 correctly, and 18% answering none correctly. An independent-samples t-test showed that subjective and objective understanding of medical statistics were related (t=2.335, p=0.021) such that those who rated medical statistics “easy” or “very easy” answered more questions correctly on average (m=1.63, SD=0.94) than those who rated it “hard” or “very hard” (m=1.25, SD=0.94). With this brief survey, we found that physicians who indicated that medical statistics were difficult scored lower on objective numeracy questions than those who indicated that medical statistics were easy. These findings add to the small but growing literature on physician numeracy. As risk communication and evidence-based medicine continue to be important to physician practice, physicians’ ability to use and understand numbers will be important to measure and address.

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MEN SHOULD BE IN (BIRTH) CONTROL FOR ONCE: COLLEGE MEN’S PERCEPTIONS ABOUT MALE HORMONAL BIRTH CONTROL

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Unplanned pregnancy is a concern for young men, but their birth control options are limited. Condoms have a low compliance rate and vasectomies are invasive and difficult to reverse (Nya-Ngatchou & Amory, 2012; Tulsani & Abou-Haila, 2010), making it important to investigate young men’s attitudes toward alternative contraceptives. With male hormonal birth control (MHBC) clinical trials in progress, we investigated college men’s willingness to use MHBC using the social reaction pathway of the Prototype/Willingness Model (PWM; Gibbons et al., 2015).

Male college students (N = 160; Mage = 19.4, SD= 1.3) filled out a questionnaire assessing willingness to use MHBC as well as perceived norms, prototype (images of male MHBC user), partner pregnancy risk from unprotected sex, and masculinity (Avoidance of Femininity; Male Role Norms Inventory Scale – Levant et al., 2010). The questionnaire included how MHBC would work, and asked men to rate their perceptions given that MHBC was safe, reversible, and FDA approved.

Men who recently had vaginal sex had marginally higher MHBC willingness (t = 1.97, p = .05). Race and age were unrelated to MHBC willingness (p > .05). Hierarchical linear regressions predicting MHBC willingness were run (first step: recent vaginal sex, second step: PWM constructs, third step: masculinity). Results indicated that perceiving MHBC use as more normative among other men (ß = .44, p < .001) and more favorable prototypes (ß = .27, p < .001) were positively related to MHBC willingness. We did not find evidence that men’s perceived risk of impregnating a partner was predictive of men’s MHBC willingness (p = .94). Higher masculinity was marginally associated with lower MHBC willingness (ß = -.12, p = .06).

These results suggest the importance of social psychological aspects of men’s identity rather than solely their perceived risk of unplanned pregnancy when considering MHBC usage. Future studies may want to consider testing PWM constructs among younger older and non-college samples to determine the generalizability of these results to other male populations.

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PRIMARY CARE PROVIDERS’ USE OF MOBILE TELEDERMOSCOPY TO ASSESS AND MANAGE PIGMENTED SKIN LESIONS

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Background: Mobile teledermoscopy (MTD)—a smartphone with a dermoscope attachment/app that uses the phone optics/camera to create a dermoscopic image—allows users to send dermoscopic images of skin lesions via phone messaging for telediagnosis. Primary care providers (PCPs) often first see melanomas but are not targeted users of MTD.

Aim: To prospectively explore the feasibility of PCPs’ use of MTD to clinically diagnose and manage pigmented lesions.

Methods: Participants were 6 PCPs who lacked dermoscopy experience, owned an iPhone®, and completed a dermoscopy tutorial. Using MTD, participants assessed and photographed at least 20 pigmented lesions on patients over 6 months. For each lesion, participants decided diagnosis (melanocytic/nonmelanocytic; typical/atypical) and management (benign/reassure patient; biopsy/refer to specialist; follow-up). Participants e-mailed the dermoscopic image and decisions to a teledermatologist who assessed image acceptability, scored lesion diagnosis/management decisions, and provided timely feedback to the participant.

Results: Participants assessed 159 lesions in 113 patients (mean age of 49.6 years [±18.2], male (46%)), who had minimal skin cancer risk factors. Participants submitted 151 evaluable images via MTD; 95% achieved medium-to-high acceptability. About 42% of lesions scored as atypical by participants received a “typical” score by the teledermatologists, indicating heightened PCP concern for an underlying malignant process. The teledermatologist scored 23% of lesions as atypical when participants thought these were typical, highlighting the need to increase the specificity of PCPs’ dermoscopy assessment through training. Participants also tended to score lesions as melanocytic when the teledermatologist scored them non-melanocytic (27%). For management, participants reassured for a small proportion of lesions (7.6%) that the teledermatologist scored as atypical, implying some degree of intervention or follow-up.

Conclusion: MTD is feasible for dermoscopy assessment by PCPs. Larger trials are needed to further assess diagnosis and management and to inform training programs for PCPs.

Funding: Pan-Pacific Skin Cancer Consortium

烟瘾者关于肺癌筛查的决策：一项定性分析

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Objective: Clinical guidelines recommend counseling patients about the potential harms and benefits of lung cancer screening (LCS). Our aim was to identify potential barriers to the informed decision-making process by exploring how the harms and benefits of lung cancer screening are being discussed and understood by current smokers when screening is proactively offered in a primary care setting.

Method: We conducted 45 qualitative interviews with 37 Veterans participating in VHA’s Lung Cancer Screening Clinical Demonstration Project. We asked Veterans to describe how they made decisions about LCS using semi-structured telephone interviews and identified themes with deductive and inductive content analyses.

Results: Participants were 89% men, M=62 years, M=49 pack-years smoking history, with 89% accepting screening when offered. Five themes emerged: 1) Most Veterans reported not needing more information than a brief conversation to decide about undergoing LCS. Many dismissed potential harms from LCS and instead focused on how early detection benefits everyone, despite acknowledging receipt of educational materials describing limited benefits and potential harms of LCS. 2) Veterans often described their motivation to be screened as “wanting to see how much damage I have done” rather than a way to inform their health in the future 3) Some described choosing LCS as an act of compliance to their providers. 4) Veterans described significant fear when thinking about lung cancer which drove their decision to undergo LCS. 5) Many Veterans described fatalism about quitting smoking from multiple failed attempts that influenced their decision to get LCS.

Conclusions: No Veterans described accurate perceptions of the potential harms and benefits of LCS. The decision to undergo LCS may be motivated by a combination factors: stigma, fear of cancer, fatalism and compliance with providers that disrupts a rational decision-making process regarding potential health risks and benefits. Current smokers may not fully comprehend the potential harms and benefits of LCS necessary to make an informed decision.

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TESTING WITH FEEDBACK IMPROVES COMPREHENSION IN MULTIMEDIA MEDICAL INFORMED CONSENT

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Multimedia presentations have been developed in an effort to standardize informed consent for surgical procedures and to reduce the burden on health care systems and providers. The goal of this study was to determine whether applying educational testing approaches to a multimedia informed consent for a medical procedure can lead to improved comprehension.

A multimedia video on informed consent for thyroid surgery was divided into four 5-minute segments. There were 120 participants who were randomly assigned to three conditions where they watched the video and were either 1) tested and provided with feedback on their answers after each segment (testing and feedback), 2) tested but not provided feedback after each segment (testing only), or 3) not tested (control). A large significant difference was found [F(2,117) = 21.49, P = .000, ² = .27]. Between-group comparisons revealed that participants in the testing and feedback condition correctly answered significantly more questions (M=97%, SD=6%) than both the testing only condition (M=85%, SD=16%) and the control condition (M=80%, SD=12%), t(51) = 4.67, p = .000, d=1.04; t(57) = 7.83, p = .000, d=1.75, respectively. There was no difference between the testing only and control conditions. The effect was stronger for moderately difficult questions versus easy questions. A higher level of anxiety before watching the video was associated with lower knowledge scores (r = -.18, p = .05). On average, anxiety increased from before watching the video to immediately after watching the video; however there was not a significant effect of condition on anxiety.

Inserting knowledge tests and providing feedback about the responses at timed intervals in multimedia videos can be effective in improving comprehension of medical informed consent. Providing informed consent through a multimedia video not only standardizes the material, but using testing with feedback inserted within the video has the potential to increase retention of this material. This could be useful in a medical setting, when patients may be processing complex medical information at a time where they have uncertainty and stress, which can interfere with cognitive processing.

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D181a 10:15 AM-11:15 AM
THE INFLUENCE OF FAVORABLE SMOKER Prototype PERCEPTIONS ON SMOKER IDENTITY
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Among those who smoke, those who think smoking is self-defining, such that they have a smoker identity, are more likely to be regular smokers and are less likely to quit smoking than those who do not. Self-concept theory suggests that smokers who have more versus less favorable perceptions of the typical smoker are more likely to have a smoker identity. We conducted two experiments to test the hypothesis that smokers are more likely to endorse having a smoker identity when they reflect on the positive traits of the typical smoker. In experiment one, young adult smokers (n = 151, age M = 22.1, 58.9% male, 85.9% White, days smoked/past 30 days M = 15.6) wrote either about positive traits of the typical smoker, positive consequences of smoking a cigarette, or the steps for smoking a cigarette. The hypothesized effect depended on participants’ gender and social comparison tendencies [F(1, 134) = 6.56, p = .01, η² = .03]. The positive trait condition resulted in a stronger smoker identity compared to the other two conditions for males with strong social comparison tendencies. In experiment two, young adult smokers (n = 272, age M = 21.78, 64.7% male, 82.71% White, days smoked/past 30 days M = 14.52) wrote either about the positive traits of the typical male, female, or non-gender specified smoker. There was a gender-match effect [F(1, 255) = 3.9, p < .05, η² = .01]. For males, the male condition resulted in a stronger smoker identity compared to the other two conditions for males with strong social comparison tendencies. For females, the female condition resulted in a stronger smoker identity compared to the male condition. Smokers are more likely to endorse having a smoker identity if they have favorable perceptions of the typical smoker, particularly if they are focused on how they compare to others and if they construe the typical smoker as being of the same gender. The influence of social comparison and gender suggests the importance of perceived similarity to the typical smoker in the formation of a smoker identity.
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D177a 10:15 AM-11:15 AM
SOMALI TOBACCO OUTREACH & RESEARCH INITIATIVE (STORI)
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Somalis are the fourth largest refugee population in the United States and second largest refugee community in Arizona, but accurate prevalence estimates of tobacco use and other health factors among Somalis is minimal. To date, no studies examining tobacco use behaviors have been conducted in Arizona, which represents a gap in existing knowledge and an opportunity to better understand the health of this underserved community with the ultimate goal of developing tailored tobacco prevention, reduction, and cessation interventions. Survey data were collected from 202 Somali participants in order to assess tobacco use behaviors, barriers to cessation, healthcare access and clinical service utilization. As a result, we found that 36% smoke cigarettes, and 75% of them smoke fewer than 20 cigarettes per day. Of those who smoke, 65% consider themselves addicted and 60% smoke their first cigarette within 30 minutes of waking. 29% have used shisha and 8% used khat (a stimulant) in the past month. Of those who use tobacco, 38% are ready to quit now, 43% are interested in quitting but have no plans to do so, and 19% are not interested at all. This is consistent with national numbers. However, only 15% sought smoking treatment help from a healthcare provider. 42% indicated that they speak little or no English, and 49% reported that an interpreter was not available when they see a healthcare provider. The sample reported additional health issues that will require behavior change: diabetes (20%), high blood pressure (19%), insomnia (20%), high cholesterol (10%), and anxiety (17%). Additional results will be presented, and will be discussed with respect to implications for addressing the needs of underserved populations via behavioral medicine.
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TOBACCO USE AND GENDER MINORITIES: NATIONAL SMOKING TRENDS IN THE TRANSGENDER COMMUNITY

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With the increasing visibility of the transgender communities due to increased acceptance and cultural awareness, the need to identify health disparities within these communities has similarly increased. In particular, tobacco use disproportionately affects ethnic- (Benowitz, Blum, Braithwaite, & Castro, 2014) and sexual-minority groups (Agaku, et al., 2014). However, little is known about tobacco use in gender-minority groups. The purpose of this study was to examine trends in tobacco use and cessation attempts in gender-minority groups compared to their cisgender counterparts. Further, we examined the role of medical professionals in patients’ attempts to quit using tobacco; we hypothesized that gender minorities were more likely to use tobacco products, but less likely to receive professional assistance to quit.

We utilized the Center for Disease Control’s National Adult Tobacco Survey (NATS; CDC, 2009), a publically available database of nationwide tobacco use behaviors, including attempts to quit and the role of a medical provider in efforts to reduce tobacco use. Additional items of interest were questions regarding access to healthcare and methods used for smoking cessation. Of the total sample of 110,841 participants who self-identified their gender, 96 (.1%) identified as transgender. Of these 96 participants, 48% were Caucasian and the majority (71%) had at least a high school education. We utilized chi-square tests and t-tests to assess significant differences between transgender and cisgender participants using weighted data to account for population differences.

All results were significant at the .05 level. Results suggest that transgender participants began smoking at a significantly younger age, began smoking earlier in the day, and report a greater median number of cigarettes smoked per day than their cisgender counterparts. Transgender participants were also more likely to use snus, cigars, water pipes and standard pipes, but less likely to use chewing tobacco. Further, they were more willing to pay more per pack than cisgender participants. Finally, though they were more likely to be diagnosed with a chronic disease, transgender participants were less likely to receive cessation assistance from a physician or medical provider. Implications are discussed.

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WHAT DO NURSE PRACTITIONERS KNOW AND ASK THEIR PATIENTS ABOUT CONCERNING ELECTRONIC CIGARETTES?

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Electronic cigarette use has become increasingly popular in recent years especially among young adults. While Nurse Practitioners (NPs) know the high morbidity and mortality risks associated in patients using tobacco products (regular cigarettes), and play a large role in smoking cessation efforts, little is known about the risks of electronic cigarette use.

The aim of this exploratory secondary analysis was to assess NPs’ overall knowledge in providing patient care related to electronic cigarette use. A mixed methods design was used with data from a study measuring NPs understanding and utilization of a Pennsylvania program for intervention in patients with dual health risks associated with diabetes and tobacco use.

NPs [n= 27, (mean age of 40 ± 15 years; mean years as an NP 9 ± 11 years)] participated in a series of focus groups from summer 2013 until spring 2014. The focus groups were evaluated for content related to the NPs’ specific understanding of electronic cigarettes and their response to patients who use them. All NPs discussed their regular interactions and referrals with tobacco using patients. Two NPs mentioned experience with patients utilizing electronic cigarettes. Several did comment on seeing electronic cigarettes used often in public. Some participants discussed the overall lack of understanding and research evidence available for electronic cigarettes; lack of healthcare education and counseling guidelines for its use as a substitute for cigarettes; and fail to initiate a discussion concerning use of electronic cigarettes.

Overall, the information gathered showed a lack of knowledge and evidence-based research NPs have surrounding patient electronic cigarette use. NPs are not initiating discussion with patients about electronic cigarette use causing a barrier in care. It is imperative for NPs to ask clients about their use of electronic cigarettes and stay up to date on information regarding new smoking products patients are using. Future research is needed to determine NP and healthcare protocols related to patient electronic cigarette use.

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Thursday

March 31, 2016
12:00 PM-1:00 PM
RATIONALES OF ATTRACTION USING A NOVEL CONTROL CONDITION
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Purpose- Advanced cancer patients participated in a NCI-funded RCT of 3 psychosocial interventions: 2 psychotherapy treatment arms and 1 “enhanced” usual care (EUC) arm. To address ethical concerns amidst this vulnerable population, the usual care arm was “enhanced” by providing subjects with targeted referral information and resources. Prior research has demonstrated that typically, dropout rates are higher in RCTs for control arm subjects compared to treatment arm subjects. The aim of this study was to evaluate the effectiveness of this novel control condition in retaining subjects and lowering attrition.

Method- 281 subjects were randomized to 1 of 3 interventions: Meaning-Centered Psychotherapy (n=98), Supportive Psychotherapy (n=93), or EUC (n=90). Subjects randomized to a treatment arm received 7 sessions of individual psychotherapy, while EUC subjects received referral information as well as a book and pamphlets with other psychosocial resources. All subjects were asked to complete surveys at baseline, 1, 2 and 4 months post-baseline. Chi square and residual tests were used to compare attrition rates across all 3 programs.

Results- Overall, there was no significant difference in attrition between the 3 programs [X^2(8, N = 281) = 11.39, p=.181]. 44 EUC, 60 Meaning, and 48 Support subjects were retained to full completion of the study (n=152). However, adjusted residuals revealed a significant difference in attrition between Meaning and EUC subjects directly after consent and pre-baseline; more EUC subjects dropped immediately after consent, while more Meaning subjects started the intervention to complete at least the baseline assessment.

Conclusions- The control arm did not result in significantly higher rates of attrition compared to both treatment arms. Future studies should consider using an enhanced comparison arm to better retain participants. However, EUC subjects did drop out more frequently pre-baseline than Meaning subjects, perhaps due to a preference for randomization to the Meaning program. Future efforts should highlight the benefits of receiving personalized referral information and resources in this novel control condition to negate attrition.

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MOTIVATIONAL INTERVIEWING TO IMPROVE MEDICATION ADHERENCE IN HEART DISEASE PATIENTS: EFFICACY, ACCEPTABILITY, AND BARRIERS
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We examined the efficacy of a brief motivational interviewing (MI) intervention to increase cardioprotective medication adherence in underrepresented patients recently discharged after a cardiac procedure. Intervention acceptability and barriers to study design were evaluated. Literature suggests high rates of nonadherence to cardioprotective medications, despite evidence of health benefits, in racially and socioeconomically diverse patients. Interventions to improve adherence have had no to moderate success, but are limited.

As part of a pilot randomized clinical trial, 31 of 38 participants recruited completed all study procedures and were assigned to one of three groups: 1) standard of care (n=8), 2) MI to increase enrollment in cardiac rehabilitation (n=11), or 3) MI to increase medication adherence (n=12). Participants completed surveys, with the 8-item Morisky Medication Adherence Scale and intervention acceptability items (if applicable), prior to hospital discharge (Time 1), 1 to 2 weeks after discharge (Time 2), and 5 weeks after discharge (Time 3). MI consisted of a brief session via phone after completion of the Time 2 survey.

Participants were mostly male (64.5%) and white (58.1%), with 80.6% earning an approximate household income of $29,999 or less. Groups did not differ on medication adherence at Time 2, and exhibited moderate adherence (M=6.84, SD=1.51). One-way ANOVA results did not support a significant effect of group assignment on medication adherence at Time 3 [F(2, 28) = 1.53, p = .233]. The majority who received MI stated that they were “very satisfied” with the session (83.3%) and that it had “a lot of influence” on their adherence (91.7%). About 43% of those not retained in the study had disconnected phones.

Results suggest that participants moderately adhered to medications and did not support the efficacy of the intervention on increasing adherence. The majority of participants were satisfied with the intervention and believed it was influential on their adherence. Access to a reliable phone was a barrier to recruitment and retention.

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PROSPECTIVE STUDY OF SLEEP, PERCEIVED STRESS, AND SELF-REPORTED CARDIAC SYMPTOMS AMONG PATIENTS WITH HEART FAILURE

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Background: Sleep disturbances are common and associated with poor outcomes in heart failure (HF) patients. Stress is also associated with sleep and may contribute to HF symptoms. This study prospectively evaluated relationships of sleep parameters and stress to self-reported symptoms among HF patients.

Methods: 75 systolic HF patients (57 males; mean age=56.61) completed the Pittsburgh Sleep Quality Index (PSQI) and the Perceived Stress Scale (PSS) at baseline and mean follow-up of 5.90 (SD=2.62) months. HF symptoms were measured using the Kansas City Cardiomyopathy Questionnaire (KCCQ) Total Symptom Scale. A Total Symptom change score (difference between baseline and follow-up) was computed.

Results: Mean baseline scores were: 1.12 (SD=1.17) for PSQI Duration; 1.31 (SD=1.30) for PSQI Efficiency; 11.33 (SD=7.85) for PSS; 81.74 (SD=22.41) for KCCQ Total Symptoms; and Total Symptom change from baseline to follow-up was 2.85 (SD=18.56). All variables were significantly correlated at baseline (p < .01). To prospectively determine predictors of KCCQ Total Symptom scores at follow-up, multiple regression analyses were used controlling for age, race, and gender. Without controlling for baseline Total Symptoms, PSQI Efficiency (β=-.462; p < .001), PSQI Duration (β=-.327; p=.006), and PSS (β=-.443; p < .001) all predicted KCCQ Total Symptom scores at follow-up. Controlling for Total Symptoms at baseline, only PSQI Efficiency remained predictive of HF symptoms at follow-up (β=-.240; p=.022). Efficiency also predicted magnitude of change from baseline to follow-up in KCCQ Total Symptoms (β=-.290; p=.022).

Conclusion: Perceived stress, sleep efficiency, and sleep duration are all associated with HF symptoms at baseline. Controlling for symptoms at baseline, only sleep efficiency, but not sleep duration or perceived stress, predicted HF symptom severity at follow-up and worsening of reported HF symptoms over time. Sleep efficiency may have a unique association with heart failure progression, and is a robust predictor of short- and long-term HF symptom severity.

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THE EFFECTS OF A COPING SKILLS INTERVENTION ON CAREGIVERS OF PATIENTS WITH COPD: SECONDARY ANALYSES FROM THE INSPIRE-II TRIAL

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Background: Previously we reported that a partner-assisted, telephone-based coping skills (CST) intervention improved psychological and somatic quality of life (QoL), but not medical outcomes among COPD outpatients.1 In this analysis, we sought to determine the effects of the CST intervention on the psychosocial functioning of caregivers who assisted in the delivery of the intervention to their respective partners.

Methods: The INSPIRE-II trial was a dual-site 16-week, telehealth intervention in which 252 COPD patients and their caregivers were randomized to CST or to a Health Education (HE) control condition. In the present analyses, we examined the impact of CST on measures of QoL obtained from caregivers before and after treatment. QoL measures included the Short Form Health Survey (SF-36), Beck Depression Inventory-II (BDI-II), Spielberger State Trait Anxiety Scale (STAI) and the Quality of Marriage Index (QMI). General linear models were used to examine treatment changes controlling for caregiver age, gender, treatment site, and patients’ disease severity.

Results: Although changes in QoL between patients and caregivers were correlated, caregivers who assisted in the delivery of CST did not exhibit greater improvements in any psychological outcome compared to those who participated in HE.

Conclusion: Although a CST intervention improved psychological functioning and QoL among COPD patients, the benefits did not carryover to their respective caregivers.


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WHAT QUESTIONS ABOUT DIABETES DO DIABETES PATIENTS HAVE? PERSPECTIVES OF PATIENTS AND PEER ADVISORS

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Background: Diabetes is a complex disease that can leave patients with many questions. This disease is especially challenging for people in disadvantaged circumstances such as the rural South East, where diabetes prevalence exceeds the national average and resources are often scare. Despite the best efforts of well intentioned health care providers, research has illustrated that patients are often hesitant to ask questions during their doctor’s visits and the information provided by a physician may not address patient questions. In order to improve outcomes in these areas, it is important to understand patient questions to design educational programs that can provide the information not obtained from the physician.

Objective: Among diabetic residents of remote rural communities, to learn which questions they have about diabetes and which they find difficult to discuss with their doctors.

Methods: We conducted nominal groups of people with diabetes and peer advisors living in rural Alabama. For both patient and peer advisor nominal groups, two separate questions were asked: 1) “What are some questions you have about diabetes?” and 2) “What are some topics you find difficult to discuss with your doctor?” Each group created a list of responses to each question in round robin fashion, assuring participation from all group members.

Results: Four nominal groups were conducted with 37 participants whose mean age was 49.5 years, and of whom 22 (59%) were women and 100% were blacks. Patients had many questions about: diet, how diabetes affects the body, medication effectiveness, logistics of taking medicine, blood sugar management, and heritability and causes of diabetes. Participants spontaneously offered that they were nervous about the doctor’s visit in general and not inclined to ask questions, but the topics that were most difficult to discuss with their doctor included side effects and questions about how diabetes affects the body.

Conclusions: These residents of a rural, underserved area who face high risks for poor health outcomes had numerous questions about essential aspects of their disease and its management, but they reported finding it difficult to discuss these questions with their doctor. Alternatives to physician-provided education that are accessible in remote areas are needed.

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N010a 12:00 PM-1:00 PM
IMPROVING KNOWLEDGE THROUGH AN EDUCATIONAL PROGRAM ON AN INTEGRATED CARE PATHWAY FOR SIB AND IDD
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To date, there is a lack of standardized treatment for individuals with self-injurious behavior (SIB) and intellectual and developmental disability (IDD). This paper is aimed at addressing the lack of knowledge and standardization in treating individuals who engage in frequent and significant SIB to the head. Specifically, this paper will address how an evidence-based integrated care pathway can increase the level of knowledge for treatment team members working with individuals with IDD that engage in frequent and/or significant SIB. Treatment team members were trained on an educational program related to SIB with the IDD population and on an integrated care pathway for SIB to the head. It is anticipated that this pathway will increase treatment team knowledge of best practices, decrease clinical variation, standardize care, and improve clinical outcomes with this vulnerable population. Finally, implications for more broadly utilizing integrated care pathways in healthcare assessment and delivery are discussed.

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N010b 12:00 PM-1:00 PM
PROTOCOL FOR RANDOMIZED CONTROLLED TRIAL OF PROBLEM-SOLVING THERAPY FOR GULF WAR ILLNESS
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Gulf War Illness (GWI) is a complex multi-system illness which causes as much disability as other major medical diseases such as cancer. Previous clinical trials (i.e., cognitive behavioral therapy and graded exercise) for GWI have sought to improve disability by increasing activity regardless of symptom presentation. These previous trials for GWI have moderate efficacy and adherence. An innovative treatment approach is to target a specific component of GWI, namely problem-solving ability, known to be associated with disability. Impairment in problem-solving ability affects Gulf War Veterans (GWV) with GWI and is prospectively related to greater risk of disability. This impairment is also related to poorer adherence to medical regimes, making it difficult for GWV to manage other aspects of GWI. Problem-solving is considered one of the most complex of cognitive abilities and is related to complicated behaviors such as setting goals, sequencing and multi-tasking. Despite published reports documenting these deficits there are no treatments that target the problem-solving deficits of GWI in order to reduce disability. We are conducting a targeted treatment, Problem-solving Therapy, to compensate for the problem-solving deficits of GWI and thereby reducing disability. We are conducting a targeted treatment, Problem-solving Therapy, to compensate for the problem-solving deficits of GWI and thereby reducing disability. Problem-solving Therapy teaches patients skills to overcome problems like cognitive dysfunction or physical symptoms that impact problem-solving. Compensating for problem-solving deficits would reduce disability and provide information on the effect of treating one component of GWI on other symptoms of GWI. This is the first trial of cognitive rehabilitation therapy for GWI. We are conducted a multi-site randomized controlled trial of telephone delivered Problem-solving Therapy versus Health Education. We will use a state of the art evidence based intervention with a structured five step sequential approach to teaching problem-solving. Our primary dependent variable is disability measured by the composite score from the World Health Organization Disability Assessment Schedule 2.0 which reflects two dimensions of disability: activity limitations and participation restrictions. In order to increase the representativeness of our sample, we will recruit 258 GWV from three VA sites in New Jersey, New York and Massachusetts.

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RE-EVALUATING RISK FACTORS FOR MEDICAL TRAUMA PATIENTS
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Cooper University Hospital has a level 1 trauma center serving over 2,400 patients annually in an urban setting. The literature for trauma symptoms shows that women and those with more acute trauma reactions are at a higher risk for post traumatic stress disorder (PTSD)1. Age at trauma and psychiatric history are also known risk factors for PTSD1. Women have been shown to have a higher rate of acute stress disorder (ASD) and PTSD in motor vehicle accidents one month after a trauma2. However, no known research has investigated acute trauma symptoms in the days directly following. This study aims to explore which known risk factors are related to ASD symptoms directly after a trauma that leads to hospitalization. This is relevant given that acute trauma predicts PTSD. Trauma patients (n=40, 60% male, Mean age=42, 47.5% white) were identified by the Behavioral Medicine Consultation Liaison team. Each completed a symptom inventory of ASD symptoms. Known risk factors for PTSD and ASD were re-examined in this study to illustrate which risk factors are most prominent for immediate trauma symptoms. Independent T-tests were utilized to determine if previously found risk factors of gender, history of a traumatic injury, and psychiatric history significantly relate to number of acute trauma symptoms in the days following the initial trauma. Neither having a prior trauma nor having a psychiatric history, being previously hospitalized due to medical or mental health concerns, or having a history of being on psychotherapeutic medications were found to be risk factors for number of trauma symptoms (p > .5). In this sample, men were found to have statistically significantly more acute stress symptoms (M=11.7, SD=4.2) than females (M=7.5, SD=4.3) (t(35)=2.9, p =.006). A correlation matrix investigated the relationship to age, which was also insignificant. Results are inconsistent with previous research on acute trauma symptoms and PTSD symptoms, which often targets patients one month or more post-trauma. This information illustrates that men have more acute trauma symptoms and perhaps women have a delayed onset of trauma symptoms that may be more pervasive. Future research should investigate if trauma type impacts symptoms initially and what psychological interventions by a Behavioral Medicine team can reduce the delayed onset of symptoms in women.

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USING FRAMING THEORY MESSAGING TO IMPROVE ATTITUDES ABOUT POLYCYSTIC OVARY SYNDROME IN OUTPATIENT MENTAL HEALTH PROFESSIONALS
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Purpose/hypothesis: Polycystic Ovary Syndrome (PCOS) is the most common but under-recognized endocrine disorder affecting up to 18% of females. The purpose of this study was to explore attitudinal changes toward PCOS in outpatient mental health practices that may be a barrier to screening behavior. We surveyed mental health professionals (MHPs) about their attitudes toward PCOS before and after administering a brief educational intervention. We hypothesized that those MHPs receiving the PCOS intervention would show greater positive changes in attitudes than those receiving the attention control intervention.

Methods: Using a pretest posttest design, we surveyed 50 medical MHPs and 113 non-medical MHPs about 14 of their attitudes about PCOS and administered a brief 4-slide educational intervention based on Framing Theory to increase knowledge and behaviors around PCOS. The participants were randomized to receive either an intervention focused increasing PCOS knowledge or an attention control intervention on recognizing co-morbidities in their practices. Analyses were stratified by type of professional.

Results: Thirty-four medical MHPs and 86 non-medical MHPs completed the 12-week posttest. Individual attitude items had small variances within professional group indicating agreement. Results were considered significant at α=0.1. Intervention predicted the attitude “I do not understand why screening for PCOS is important for treating my clients” in medical (p=0.065) and non-medical professionals (p=0.026). Confidence in self-educating about PCOS was also predicted by intervention in non-medical MHPs (p=0.097).

Clinical Relevance: A very brief educational intervention shows promise in making attitudinal changes. This could potentiate improved screening and referring practices for PCOS in mental health practices. These findings could also help improve future messaging interventions to increase PCOS awareness and recognition by MHPs.

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INCREASING BREASTFEEDING RATES WITH FINANCIAL INCENTIVES AMONG PUERTO RICAN MOTHERS IN PHILADELPHIA

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BACKGROUND: Socioeconomically disadvantaged Puerto Rican mothers in the U.S. present the median breastfeeding duration of 2 weeks. Although peer support has shown an advantage to increase breastfeeding rates at 3 and 6 months postpartum, there is room for improvement to motivate and support Puerto Rican mothers in the U.S. for continued breastfeeding.

OBJECTIVE: To examine whether home-based, professional and peer breastfeeding support combined with monthly financial incentives on observed breastfeeding or pumping increase breastfeeding rates at 1 and 3 months postpartum.

DESIGN/METHODS: All participants (N = 36) were Puerto Rican mothers living in Philadelphia and received supplemental nutritional services from a local Women, Infants, and Children (WIC) program. A bilingual lactation consultant in Philadelphia and received supplemental nutritional services from a local lactation consultant in Philadelphia. All participants were randomized to also receive monthly financial incentives on observed breastfeeding or pumping for 6 months following delivery. The incentive amount has increased every month from $20 to $70 so as to encourage continued breastfeeding for 6 months.

RESULTS: The breastfeeding rates were 89% in the incentive condition (n = 18) versus 44% in the professional and peer support only condition (n = 18) at 1-month (p = 0.01) and 89% versus 17% at 3-month (p < .0001). The study is ongoing until all 6-month assessments complete.

CONCLUSIONS: Monthly financial incentives that systematically increase the magnitude may help Puerto Rican mothers continue breastfeeding for at least 3 months. Many report struggles to continue breastfeeding and pumping as they go back to work and are hesitant to breastfeed or pump in public places.

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APPETITE AWARENESS TRAINING FOR COLLEGE FRESHMEN: A RANDOMIZED CONTROLLED PILOT STUDY
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Weight gain among college freshman women is a common concern, and an average weight gain of 3-5 lbs has been documented. The current pilot study aimed to evaluate the efficacy of a brief intervention aimed at increasing an individual’s ability to eat intuitively based on bodily hunger and satiety cues, thereby potentially preventing weight gain. Thirty-four college freshman women were randomly assigned to one of three conditions: Appetite Awareness Training (AAT; n=12), Nutrition Education (NE; n=10), or a no-treatment control (NTC; n=12). Treatment groups received four group sessions over 6 weeks. Assessment at baseline and post intervention included height and weight as well as measures of: awareness of appetite cues, frequency of overeating, self-efficacy to resist eating in a variety of contexts, and self-efficacy to manage weight. Multiple one-way ANCOVAs, controlling for baseline BMI, were conducted to examine group differences, with follow up contrast tests to explore specific group differences (i.e., intervention vs. control; AAT vs. NE). Both the AAT and NE groups lost weight, whereas the control group gained weight (r̄= .36, medium effect), and reported a greater increase in weight maintenance self-efficacy than the NTC (r̄= .37, medium effect). There was a small effect for ability to resist eating across a variety of contexts (r̄= .15), though the AAT group showed the greatest increase in control in situations where food was highly available (r̄= .30, medium effect). There were no significant group differences on number of overeating episodes or awareness of appetite cues. In general, brief group interventions were more effective than no intervention, and in the short term, appeared relatively similar in terms of effects. Both the AAT and NE groups improved in all areas assessed, whereas the control group generally did not. It is anticipated that the AAT group may be more likely to sustain weight gain prevention long-term (5-month follow up data will be collected February, 2016). Implications and evaluation of interventions will also be discussed.

ASSOCIATIONS BETWEEN INFORMATIONAL NEEDS AND BMI CHANGE IN ADOLESCENT BARIATRIC SURGERY PATIENTS
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Objective: Bariatric surgery is an effective method for decreasing excess body weight and improving associated medical and psychosocial comorbidities. Though initially performed exclusively on adults, bariatric surgery has proved effective with younger populations. The purpose of this study is to examine associations between adolescent bariatric surgery patients’ reduction in body weight and post-surgery perspectives of information they wish they had known prior to surgery.

Methods: This study took place at a large, pediatric hospital within an academic medical center. All Adolescent Bariatric Surgery Program patients who were at least three months post-surgery were invited to participate during a follow-up bariatric surgery appointment. Participants were asked to complete an anonymous questionnaire prompting them to reflect upon information that they wish they knew more about prior to surgery. Data was also collected about their current and pre-bariatric surgery weight and height.

Results: Twenty patients consented to participate in the study. The body mass index (BMI) of participants prior to surgery ranged from 43.6 to 71.0 (M = 55.11, SD = 8.5) and 27.2 and 65.3 following surgery (M = 42.9, SD = 9.9). The mean percent reduction in BMI was 22% (SD = 16); one patient had a net weight gain at the time of completing the questionnaire. A two-tailed bivariate Pearson correlation was conducted to examine the relationship between percent BMI loss and informational needs, which revealed a non-significant association between adolescent bariatric surgery patients’ reduction in body weight and informational needs, which revealed a non-significant association between percent BMI change and information needs (r(19) = -.295, (p = .21)).

Conclusions: Though it was expected that adolescents who experienced a greater percent change in their BMI would retrospectively express having had fewer informational needs than those who were less successful losing weight, this hypothesis was rejected. That is, this study does not show any significant relationship between these two variables. These results suggest that BMI reduction may be due to factors other than a lack of information, such as motivation and adherence.

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THE RELATIONSHIP AMONG INHIBITORY CONTROL, DEPRESSIVE SYMPTOMS, AND EMOTIONAL EATING

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Emotional eating is a prevalent and impairing concern that is associated with obesity. The relationship between depression and emotional eating is well-established; however, research examining the ways in which other psychological factors may impact emotional eating is limited, particularly among non-eating disordered populations. Poor inhibitory control is one such psychological factor that may have an important role in the relationship between depression and emotional eating, as it has been associated with both depression and overconsumption in previous research. To our knowledge, only one study has shown that inhibitory control, as measured by the Eating Disorder Inventory (EDI-II), mediates the relationship between depression and emotional eating. The present study tested the hypothesis that inhibitory control would mediate the relation between depression and emotional eating to better understand psychological factors that may be implicated in emotional eating among individuals with obesity. Participants (N = 132) completed the Beck Depression Inventory (BDI-II), a go/no-go (GNG; inhibitory control) task, and the Three Factor Eating Questionnaire (TFEQ-18). On average participants failed to inhibit their responses 18.4% (0% to 40%) of the time, reported low levels of depression (M = 6.4; 0 to 31.5), and emotional eating (M = 7.5; 3 to 12). Inhibitory control was positively correlated with level of depression (r = .20, p = .03), but not emotional eating (r = -.03, p = .70). Inhibitory control did not mediate the relationship between depression symptoms and emotional eating (95%CI: - .03 to .01). Future research should examine the role of inhibitory control using a variety of measures (e.g., self-report, behavioral) to determine if a relationship exists among inhibitory control, depression, and emotional eating. Research in this area may inform treatment approaches for obese individuals with poor inhibitory control.

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DIET INTERVENTION PREFERENCES OF LONG-TERM CARE WORKERS TO PREVENT CARDIOVASCULAR DISEASES

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Background: In the U.S., cardiovascular disease is the leading cause of death; responsible for 1 out of every 4 deaths per year. Long-term care (LTC) workers are at a greater risk for cardiovascular disease than the rest of the population due to their demographic profile. Further, Worksite health programs (WHP) have been conducted but rarely focus on LTC workers.

Objective: To describe dietary habits, social support for health behaviors and nutrition intervention preferences of LTC workers. This information can guide future interventions within LTC workers.

Design: This was a descriptive study (n=98) using baseline data from an on-going WHP called the Worksite Heart Health Improvement Project-PLUS (WHHIP-PLUS). The WHHIP-Plus is an 18-month intervention currently being tested in a randomized study including four LTC facilities. Subjective data collection was done via survey, which was completed by the participants during paid work time. Dietary intake was evaluated using the Block Brief Food Questionnaire (BFFQ). The BFFQ asks about consumption of meats, dairy, spreads, and snacks over the past week. Social support for heart healthy behaviors was measured via the modified Social Support for Exercise Scale.

Results: The median age of the participants was 32.00 years (SD=13.33). Most participants were educated beyond high school (n=59, 65.5%), non-Latino (n=71, 95.9%) and African-American (n=45, 48.9%). The average weekly consumption of high salt, fat foods was (32.44 (SD=1.99) servings a week. Of those high salt, high fat foods the most commonly consumed foods were butter (x = 3.29, SD=2.59), cheese (x =3.20, SD=2.77), and crackers, (2.44 (SD=0.00) serving per week. Participants reported low social support for healthy behaviors from their boss (3.30 (SD=3.39) and coworkers (4.02 (SD=3.97). Further participants noted working in LTC makes it difficult to eat healthy because of limited healthy options and lack of preparation time. Education preferences based on feedback to the team included recipe modification with taste test demos, individualized nutrition plans, and healthy food suggestions.

Conclusion: Our preliminary data suggest LTC workers eat salty and fatty foods, have limited support for healthy behaviors at work, face environmental barriers to healthy eating at work, and prefer tailored diet education.

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EVALUATING BARRIERS TO MEDICATION ADHERENCE: A COMPARISON OF PATIENTS WITH PHYSICAL VERSUS PSYCHOLOGICAL ILLNESS
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Abstract

Purpose: Numerous factors can contribute to non-adherence for patients on a prescribed medication; however, barriers to adherence may differ depending on type of illness. This study compares common barriers associated with medication adherence for patients with a psychological illness (e.g., ADD/ADHD, depression, anxiety, sleep disorders) versus a physical illness (e.g., epilepsy, hypertension, hypothyroidism). Common known barriers include medication cost, medication side effects, and forgetfulness. However, there is little research that compares common adherence barriers based on disease category.

Methods: 157 college students, diagnosed with a chronic illness and prescribed a maintenance medication, were categorized based on illness type: mental illness (n=83) or physical illness (n=74). All patients completed the 12-item Barriers to Treatment Adherence Questionnaire, the Morisky Medication Adherence Scale, and the General Adherence Questionnaire. Barriers and adherence rates were compared between mental and physical illness groups.

Results: Univariate analyses revealed that there was no significant difference in overall adherence scores between groups. However, significant barriers reported by patients with a mental illness were appetite or weight loss (p=.021), restricted or inhibited alcohol consumption needed while taking medication (p=.050), and anxiety or jittering as a side effect (p=.039). A significant barrier reported by patients with a physical illness was forgetting to take medication when leaving home or when traveling (p=.031). Patients with a mental illness were also significantly more likely than those with a physical illness to report that they stopped taking their medication without notifying their physician due to negative side effects (p=.043).

Discussion: Implications from this study can be applied to clinical settings in that physicians may vary their communication about adherence barriers depending on patient’s disease category (mental or physical illness) with the aim of improving adherence rates and avoiding negative consequences.

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REVERENCE—A POSITIVE EMOTION WITH POSITIVE IMPLICATIONS FOR BEHAVIORAL HEALTH
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Reverence is a self-transcending positive emotion, associated with certain worldviews, which embraces meaning and purpose in life. It was also considered to be a cardinal virtue deeply rooted in Western and Eastern civilization. In this interdisciplinary study, we investigated two different samples to demonstrate the predictive value of a short Sense of Reverence (SOR) scale. Study-I was a clinical study on older open-heart surgery patients (N=480+), capitalized on the Society of Thoracic Surgeons’ (STS) database. All participants underwent open-heart surgery that required a heart-lung machine. Extensive instruments were used in the multi-wave study. The initial properties for the twofold scale, Reverence in Secular (interpersonal, naturalistic, and aesthetic) and Religious Contexts (R- and S-reverence) were provided. Controlling for STS indices, S-reverence prior to operation predicted a) fewer complications and b) more active engagement in the end-of-life decision making in patient undergoing coronary artery bypass graft surgery, and c) shorter hospital stay among all patients. At the 30-month follow-up, R-reverence predicted poor adjustment. Study-II confirmed the structure and further validated the scale in healthy Canadian and US participants (N=233). Using structural equation modeling, we demonstrated differential associations of SOR-sub-constructs. S-reverence was associated with spiritual support from non-traditional sources, a belief in death as a natural end, and psychological functioning connected with growth. S-reverence was related to spiritual support from non-traditional sources, a belief in death as a natural end, and psychological functioning connected with growth. R-reverence was associated with spiritual support from traditional sources, a belief in a rewarding afterlife, and psychological functioning connected with adjustment.
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HEALTHCARE WORKERS WILLINGNESS TO LINK PATIENTS TO PROGRAMS ON PHYSICAL ACTIVITY AND NUTRITION IN A FREE COMMUNITY HEALTH CLINIC
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Introduction: Developing referral networks to support behavior change may be useful in linking patients to community resources where they can get the required time, support, and guidance to change unhealthy behaviors. We aimed to identify strategies that promote the development of referral networks by health care teams to guide patients to resources for physical activity (PA) and nutrition.
Methods: Interviews were conducted with all health care providers (HCP) and administrators (HCA) at a free community health clinic serving uninsured, low-income Hispanics. The interview examined HCPs role in the health clinic, interactions with patients, as well as knowledge and use of existing referral networks, to identify strategies for implementing a referral network in the clinic for PA and nutrition. A similar set of questions, adapted to focus on the administrative role in implementing referral networks, were asked of the HCAs.
Results: Eight interviews were conducted in the clinic (HCPs, n=6; HCAs, n=2). Two-thirds of all HCPs reported referring patients to outside programs for any health issue, but only 13% referred patients to programs for PA and nutrition. The most common barrier to referring patients was a lack of awareness of programs available (72%). All HCPs were “very willing” to utilize referral networks to connect their patients to programs for PA and nutrition. The HCAs agreed that they should play a more supportive role by promoting and prioritizing the program. When asked about barriers to utilization of a referral network, HCPs said time (63%), cost (63%), and transportation (50%) were seen as the most important to the patients.
Discussion: HCPs and HCAs were willing to implement referral networks to connect patients to programs that support behavior change. Utilizing referral networks is a potentially cost-effective strategy to connect underserved Hispanic patients to local resources for PA and nutrition and warrants further exploration in the future.
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Background: Recent research has highlighted the importance of not just physical activity for health but also the reduction of sedentary time. Sedentary time includes activities performed at low energy expenditures & in a sitting or reclining posture. This pilot study explored whether total time being sedentary or number of breaks from sedentary time was associated with a measure of general health, heart rate variability (HRV), in men with prostate cancer. As HRV is affected by orthostasis, it is possible that more time standing & doing light movement could be related to HRV.

Methods: Participants included twelve men over age 50 with prostate cancer. They wore an Actigraph with a heart rate strap for five minutes while sitting & breathing normally to measure resting HRV. They then wore a waist worn Actigraph accelerometer for one week to measure sedentary time. HRV was analyzed from the interbeat intervals using Kubios. Time domain measures of parasympathetic activity (RMSSD, pNN50) & frequency domain measures of the balance between parasympathetic (vagal) & sympathetic function (low/high frequency ratio (LF/HF)) were examined. Non-parametric correlations (Spearman’s rho) were used to compare HRV with sedentary time.

Results: Measures of parasympathetic nervous system activity were not related to any measure of sedentary behavior (all p’s>0.30). Measures of sympathetic-vagal balance were correlated with average number of breaks from sedentary behavior (LF/HF: r= -0.66, p=0.02) & time spent in sedentary behavior breaks (LF/HF: r=0.73, p=0.01) but not total sedentary time (r= -0.39, p=0.22).

Conclusions: This small pilot study indicates that further exploration is warranted on whether HRV, particularly the balance between the parasympathetic & sympathetic nervous systems, is related to total sedentary time or number of breaks from being sedentary. However results are preliminary as this study was small & limited to men with prostate cancer. The strong correlations observed indicate that autonomic nervous system function could be improved by breaking up sedentary time.

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MENTORS OFFERING MATERNAL SUPPORT (M-O-M-S): FINDINGS FROM A RANDOMIZED CONTROL TRIAL OF PROGRAM EFFECTIVENESS

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Background: Prenatal maternal psychosocial stress, anxiety and depression are associated with poor birth and infant outcomes. The associations point to the need for prenatal assessment and intervention for psychosocial anxiety of pregnancy and depression. The Mentors Offering Maternal Support (M-O-M-S™) prenatal program focuses on pregnancy-specific anxiety and depression predictive of poor birth outcomes. The purpose of this study was to test program effectiveness in a large randomized study with military women.

Methods: Participants were 240 women randomized to M-O-M-S™ intervention or normal prenatal care without M-O-M-S™. Psychosocial measures were completed at baseline and each trimester. Trained military mothers (mentors) led classes. Results: Sample ages were 19-39 yrs, 80% married to active duty men and 30% being active duty. Longitudinal models for each DV were created controlling for ethnicity, marriage length, age, education, deployment of spouse and planned/unplanned pregnancy. Statistically significant differences were found for participation in the M-O-M-S™ for increased feelings of wellbeing (p < 0.003), for increased feelings of emotional support (p < 0.000)/social support (p < 0.02) and acceptance (p < 0.04). Conclusion: There is a lack of longitudinal studies, testing effectiveness of prenatal programs for decreasing psychosocial stress and anxiety of pregnancy. The findings from this study provide evidence to support the effectiveness of a prenatal mentor-supported program for decreasing psychosocial stress of pregnancy. The findings related to well-being during pregnancy are predictive of maternal attachment and depression. Research indicates that military women indicating lower self-reliance and social support have high incidence of postpartum depression. The positive results for increased acceptance are important for military women faced with frequent unexpected changes and family separations. Ongoing research efforts will focus on sustained results for maternal-infant attachment, role satisfaction and depression.

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ASSESSING SCHOOL WELLNESS POLICIES TO REDUCE RISK BEHAVIORS: ALCOHOL AND SMOKING AMONG ISRAELI SCHOOL CHILDREN

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Background: Among adolescents risk behaviors may serve as a tool for social acceptance, control and independence. Israel is currently ranked second in the HBSC (2010-2011) international survey for alcohol consumption and ninth for smoking behavior out of 47 countries surveyed. In recent years, intervention policies targeting the issue have been gradually implemented across the country. This study aimed to evaluate the contribution of these policies and detect their most effective components, using a multilevel analysis model, while controlling for student characteristics.

Methods: The HBSC (2010-2011) surveys of 5279 Israeli students and 146 school principals were analyzed together in order to produce a multilevel data set of child behavior and school policy. Logistic HLM was used to simultaneously estimate the contribution of student level and school level effect on alcohol consumption and smoking behavior.

Results: Most of the variance in risk behaviors is explained by student level variables, such as negative perceptions of school, parent support regarding school and time spent with friends.

Yet, among the school level policy measures, parents’ participation in health promotion intervention programs repeatedly proved to significantly reduce risk behaviors, over and above student characteristics.

Conclusions: School wellness policy addressing risk behaviors is an important step towards reducing these behaviors. Future interventions should focus on parents’ involvement and seek to increase the effectiveness of the other tools.

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EXAMINING PERCEIVED VULNERABILITY AS A MECHANISM OF ACTION IN A CLINICAL TRIAL TO MOTIVATE SMokers TO QUIT.

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ABSTRACT

Background: Perceived vulnerability (PV) or the perception that one is at risk for undesirable consequences of a health behavior, has been associated with better health and smoking cessation outcomes. The extent to which cessation-induction interventions influence PV is not well understood.

Purpose: To compare the impact of Motivational Interviewing (MI) and Health Education (HE) on PV and to determine if PV is a predictor of smoking cessation or quit attempts.

Methods: Data were drawn from a 3 arm randomized controlled trial comparing MI, HE, and Brief Advice (BA) as methods of encouraging low motivated smokers to quit. Participants (N=255; mean age =45.82; 43.1% female) completed a 3-item assessment of PV at baseline, week 12, and week 26. Participants received either 4 sessions of MI, HE, or 1 session of BA.

Results: Regression models using dummy coding examined the effects of MI (vs. BA) and HE (vs. BA) and revealed that HE significantly increased PV relative to BA (p .10). However, logistic regression analyses indicated that change in PV from baseline to week 12 was not a significant predictor of smoking outcomes (all p’s > .10).

Conclusions: HE is more effective than MI in increasing PV from smoking among unmotivated smokers but, surprisingly, increases in PV may not translate into behavior change. These results highlight the importance of examining potential mechanisms of action of behavioral intervention for improving treatment and health outcomes.

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PSYCHOLOGICAL DISTRESS EXPERIENCED DURING CANCER SCREENING: A SYSTEMATIC REVIEW

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Background: Cancer screening is associated with emotional distress. The U.S. Preventive Services Task Force (USPSTF) cancer-screening guidelines often consider associated distress in its recommendations. More research is needed to improve understanding of the emotional experiences of patients undergoing cancer screenings. This systematic review examined 24 articles to determine the role of distress across different types of cancer screenings.

Methods: A systematic review of English articles was done through academic search engines Ovid MEDLINE (1946 to 2014) and PsychINFO. The review documented the levels of psychological distress reported in U.S. adults undergoing various types of screening in randomized controlled trials and observational studies. Only studies with distress measured two weeks before or within one month after cancer screening were included.

Results: 5,388 articles were initially found using the databases. Using a systematic coding scheme of inclusion and exclusion criteria, 5,224 studies were removed based on title or abstract. After reviewing 164 papers, 24 articles met eligibility requirements and were included in the review. Results ranged from low distress (for example M=34.8, on the State Trait Anxiety Inventory, range = 20 to 80) to high distress (M=50.2 on the Penn State Worry Questionnaire, range = 16 to 80). Studies included screenings for breast, cervical, colorectal, ovarian, prostate, and lung cancer. Overall studies were small in number and included a variety of non-validated and validated distress measures.

Conclusions: The systematic review examined the associated distress with USPSTF recommended cancer screenings for breast, cervical, colorectal, and lung cancer, and non-recommended screenings for ovarian and prostate cancer. There were too few US-based studies which measured distress near the time of screening to make comprehensive conclusions about the consequences of distress. Assessing and comparing the severity of distress levels across different types of cancer screening have important implications for policy changes in screening recommendations, but larger studies using evidence-based measures are needed.

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STRESS AND BEHAVIORAL EATING PATTERNS MEDIATE WEIGHT LOSS IN OBESE ADULTS IN A MIND-BODY AND NUTRITION PHONE INTERVENTION

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Purpose: Obesity is a major public health concern and increases the risk of developing many chronic diseases. Stress plays a role in unhealthy behavioral eating patterns that contribute to obesity; however, more studies are needed to identify the relationship between stress and behavioral eating patterns, and their effects on weight loss. This study evaluated the mediating roles of stress and behavioral eating in predicting improvements in weight loss in obesecommunity health center patients receiving a mind-body and nutrition telephone coaching intervention.

Methods: This was a single-arm, pilot study with 30 patients receiving care at an MGH-affiliated community health center. Participants received an initial in-person visit with a nutritionist trained in mind body medicine followed by biweekly telephone coaching sessions over six months. We collected anthropomorphic data, and subjects completed the Cigna Behavioral Eating Questionnaire (Cigna) and Perceived Stress Scale-10 (PSS-10), at baseline (pre) and six month follow-up (post).

Results: Of 30 participants who enrolled in the study, 25 completed the six month intervention. An intent-to treat analysis showed body mass index (BMI), Cigna, and PSS-10 scores improved significantly from pre to post (n=30; BMI mean decreased from 37 to 36, p=.01; PSS-10 mean decreased from 20 to 14, p=.01). We used a linear regression model to examine changes in BMI mediated by changes in stress and eating pattern. Both improvements in scores on the Cigna (B=-.4, SE=.1, p=.01) and PSS-10 (B=-.1, SE=.05, p=.02) significantly predicted improvements in BMI (n=30; F (27,2) = 5.8; p = 0.01; adjusted r2 = 0.3).

Conclusion: Obese participants showed significant weight loss that was mediated by perceived stress and behavioral eating patterns after a mind-body and nutrition telephone coaching intervention. Stress reduction and improvements in behavioral eating patterns may be mechanisms by which weight loss is achieved. Our findings have implications for improvements in weight loss interventions. Our results also warrant a larger, randomized controlled trial with longer follow-up to evaluate the roles of stress reduction and modification of behavioral eating patterns in achieving weight loss over time.

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CHILDHOOD ABUSE ASSOCIATED WITH LIFETIME SUBSTANCE ABUSE OF LATINO AMERICAN WOMEN

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Introduction: Childhood abuse is a major behavioral health concern and imposes lasting damages. Yet, there is scarce gender-specific research on protective and risk factors for Latina-Americans’ problems, such as substance abuse. This study aimed to investigate the incremental prediction of childhood and substance abuse of Latinas, alongside cultural resource factors, above and beyond known predictors in the National Latino and Asian American Study (NLAAS).

Methods: We performed two sets of three-Step-logistic regressions to predict substance abuse in-lifetime, respectively, for 1,427 Latinas following pre-planned steps. Model-1 evaluated known predictors as controls; Model-2 assessed childhood physical and sexual abuse; and Model-3 added cultural resource factors.

Results: Among Latinas, rates of childhood physical and sexual abuse were 28.0% and 18.4%, and rates of substance abuse in-lifetime and in-past-year were 4.8% was 1.2%, respectively. In the final model, childhood physical abuse significantly predicted substance abuse in-lifetime, alongside social support and discrimination, as well as religious coping. However, higher education and acculturation stress were inversely related to the outcome. Sexual abuse, religious attendance, and other psychosocial predictors had no influence.

Conclusions: Childhood physical abuse is an early risk factor for developing long-term substance abuse, viewed as a negative coping strategy beginning in teenage years among Latin-Americans. Yet, the abuse history may increase positive help-seeking behaviors such as social support and religious coping within the collective cultural community among adult Latinas. To provide culturally sensitive medical care, health providers should address the question on early trauma in the assessment of and intervention with Latinas.

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COUNT: 379