

Board 302

Overcoming Perceived Barriers to Physical Activity in a League Structured Program: An Interpretive Qualitative Study Design

Mohd Rafiq, Alfiya Shaikh; Selina Stasi

Purpose: This study presents a multifactor enriched Physical Literacy League program (PLLP) created by combining several theoretical approaches to promoting motor, cognitive, and socio-emotional skills development through Physical Activity (PA). The purpose of the study was to examine the PLLP's effectiveness utilizing physical literacy characteristics (PL). The study also aimed to use PLLP as a means to foster solidarity and celebration in order to overcome perceived barriers to PA.

Method: The study included 36 school-going children-12 girls and 24 boys, from a war-torn small town in India, where barriers to PA emanated from systemic issues and post-traumatic experiences. The participants engaged in PLLP-developed on foundation of PL characteristics such as motivation, confidence, knowledge and understanding, physical competency, and value. Participant baseline PL characteristics were recorded. An interpretive qualitative study methodology was used to assess the effectiveness of the PLLP. Data collection included online and semi-structured interviews. Creswell's thematic analysis methods were employed to arrange the data, and Leximancer software was used to build concepts and cross-validate themes. The PLLP's applicability and effect on perceptions of PA barriers, desire for outdoor PA, and social involvement were evaluated critically using PL characteristics.

Results: Results show perceptions of PA barriers decreased following the program, cited through children's active participation in gender-neutral Physical Education sessions. Furthermore, the study showed that parent education, gamified virtual sessions, and parent-child interactive games increased children's desire for physical exercise and enhanced physical competency. In addition, children were motivated by virtual engagement within their comfort level, which expanded to outdoor PA and involvement with peer groups. The study's results suggested that initiatives like the PLLP could address children's early development needs while offering high-quality learning opportunities. In the future, emphasis should be made on creating long-term cognitive-behavioral intervention programs to ensure continuity with the least degree of relapse.

Board 303

Medical Autonomy and Choice-Making among Individuals with Intellectual and Developmental Disabilities

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Purpose: Using data from 2021-2022 National Core Indicators (NCI) survey----assesses quality and outcomes of Developmental Disability Services for individuals with intellectual and/or developmental disabilities (IDD) and families in 46 US states--- aim of study was to analyze perceived level of choice by type of IDD and use of mental health medications in Indiana.

Method: NCI Adult In-Person Survey (IPS) is conducted with a stratified random sample of N=700 individuals who are 18 years of age or older and receiving at least one paid service from the state. Electronic health records provide level of disability, mental health medication

prescribed for mood disorder, anxiety, psychotic disorder, or behavioral challenges Two subscales assess choice opportunities.

Results: In Indiana, 72% of the individuals interviewed had mild or moderate levels of IDD, followed by Severe or Profound (15%), or unknown/unspecified (12%). Approximately 62% of individuals with mild or moderate IDD, 60% with severe or profound IDD, and 64% with unspecified IDD were taking medications for mental health issues. Average scores indicating levels of choice were higher for individuals with mild (2.37) or moderate (2.14) levels of IDD than for those with severe (1.83), profound (1.70) levels.

Conclusions: It appears individuals in Indiana with low/moderate levels of disability report higher choice scores compared with those with more severe IDD. Moreover, average levels of choice are lower for individuals who take medication for mental health medication regardless of level of disability. Notable that questions used to determine NCI choice scores assess mundane opportunities; whereas, true questions about personal autonomy, decision-making, abilities to take risks/risk failure opportunities, and medical autonomy are not included. Further refinement of NCI choice scales is recommended to reach true health equity within this population, as is accurate measurement of the intersectionality of choice among individuals with IDD/DD who have mental health disorders/issues.

Board 304

Patterns and Correlates of Alcohol Misuse among Young Black Men Who Have Sex with Men in New York City

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Background: This study aimed to identify patterns of binge drinking, alcohol misuse, and describe factors associated with alcohol misuse in a sample of young Black men who have sex with men (YBMSM) living in New York City.

Methodology: Baseline data from a randomized controlled trial aimed at improving the uptake of HIV testing among YBMSM/Transwomen were used. Log-binomial regression analysis was conducted to assess the association between sociodemographic factors and alcohol misuse among YBMSM.

Results: Among 250 participants, the mean age was 22.75 with 44.8% aged 22-25. Approximately 70.0% identified their sexual orientation as gay. Most participants were born in the U.S. (88.8%) and not religious (52.4%). The 12-month prevalence rates of alcohol misuse and binge drinking in the past year were 33.2% and 51.6%, respectively, while the corresponding rates in the past three months were 28.0% and 42.8%. In multivariable models, factors positively associated with past-year alcohol misuse included marijuana use (aPR: 2.55, 95% CI: 1.33, 4.49), a history of drug use (aPR=1.05, 95% CI: 1.02, 2.21), and having 1-2 (aPR=1.87, 95%CI: 1.07, 3.26) or more than 2 male sex partners (aPR=1.94, 95%CI: 1.08, 3.50). Likewise, using marijuana (aPR=2.30, 95%CI: 1.12, 4.71) and having 1-2 (aPR=2.02, 95%CI: 1.07, 3.80) or more than 2 male partners (aPR=2.18, 95%CI: 1.13, 4.19) were more likely to report alcohol misuse in the past three months. No significant association was found between depression symptoms, chemsex, and internalized homophobia.

Conclusion: The high prevalence of alcohol misuse and binge drinking underscores the importance of raising awareness of alcohol misuse as well as designing alcohol risk reduction programs that jointly address HIV risk among YBMSM.

Board 305

Youth Participation in Substance Use Prevention: National Trends and Demographic Differences in the U.S.

Wenhua Lu; Melissa Bessaha; Miguel Muñoz-Laboy

Purpose: To examine national trends and sociodemographic differences in youth participation in alcohol, tobacco, and other drug (ATOD) prevention in the U.S..

Methods: Publicly available data for adolescents aged 12-17 (N = 136,262) from the 2011-2019 National Survey on Drug Use and Health were analyzed. Bivariate and multivariable logistic regression analyses were conducted to examine time changes and sociodemographic differences in adolescent (1) conversations with parents about the danger of ATOD use, (2) participation in any community-based ATOD prevention programs, and (3) receipt of any ATOD prevention education in school. All analyses adjusted for complex survey design and adjusted odds ratios (AOR) were reported.

Results: From 2011 to 2019, the percentages of adolescents who had talked with their parents about dangers of ATOD remained stable at below 58% ($p = 0.46$). In 2019, 10.6% and 70.2% of adolescents participated in community-based and school-based ATOD prevention programs, decreasing linearly from 12.1% (OR = 0.98, $p < 0.001$) and 74.7% (OR = 0.97, $p < 0.001$) in 2011, respectively. Compared to boys, girls were more likely to talk with parents (AOR = 1.11; $p < 0.001$) and participate in school-based programs (AOR = 1.16; $p < 0.001$), but less likely to participate in community-based programs. Overall, lower levels of community-based program participation were noted in older adolescents. Compared to Whites, racial/ethnic minority adolescents were much less likely to talk with their parents about ATOD use but more likely to participate in community-based programs. Additionally, Asian Americans were more likely to participate in school-based programs (AOR = 1.41; $p < 0.001$). Relative to adolescents in metropolitan areas, those living in rural areas were more likely to participate in community-based programs (AOR = 1.24; $p < 0.001$) but less likely to receive school-based prevention education (AOR = 0.93; $p < 0.01$).

Conclusion: To address sustained substance use in adolescents, enhanced prevention efforts at the family, community, and school levels are needed that consider the unique needs of diverse subgroup populations.

Board 306

Understanding Longitudinal Relations Among Frequent Social Media Use, Electronic Nicotine Delivery Systems Use, and Internalizing Mental Health Problems Among U.S. Adolescents

Lee, Shieun; Chow, Angela; Luo, Juhua; Elam, Kit; Lohrmann, David

Abstract: Background: There is concurrent surge in social media use, e-cigarette use, and mental health problems in adolescents. However, literature presents conflicting results. Besides, different theories posit different transitional patterns (e.g., functional theory of self-disclosure vs. emotional contagion theory).

Methods: Data were drawn from Wave 2-5 (including Wave 4.5) of the Population Assessment of Tobacco and Health (PATH) Study. Of the 6,266 adolescents aged 12-14 years at baseline, a total of 4,916 individuals had matched data for the follow-up assessments. Weighted logistic

regressions with the generalized linear mixed model with random effects were fitted to examine the within-person time-lagged associations between three variables of interest. In addition, a series of model-based within-subject causal mediation analyses were performed to estimate the average causal mediation effect (ACME) for each mediation model using R version 4.2.0.

Results: Whereas experimental (i.e., 1-2 days) or nonfrequent (i.e., 3-19 days) e-cigarette users within the past 30 days peaked at Wave 4.5, frequent users (20+ days) kept increasing during the study period. The one-year time-lagged frequent social media use (“t-1 media”) predicted experimental ([adjusted odds ratio (AOR) = 2.70, 95% CI = 2.68, 2.72]) and nonfrequent (AOR = 2.13, 95% CI = 2.12, 2.14) e-cigarette use but not frequent e-cigarette use in later waves. The t-1 media also predicted internalizing mental health problems (AOR = 1.37, 95% CI = 1.17, 1.59) and one-year time-lagged internalizing problems predicted subsequent frequent social media use (AOR = 1.69, 95% CI = 1.45, 1.97). Frequent social media use not only served as a predictor for e-cigarette use but also mediated the prospective association between e-cigarette use and internalizing mental health problems.

Conclusions: Our results revealed that there are multiple longitudinal pathways around social media use, e-cigarette use, and mental health problems. Those adolescents who use social media more frequently are more likely to use e-cigarettes but not necessarily frequently.

Board 307

Systematic Review of Postpartum Smoking Relapse Interventions Among Maternal Women

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Purpose: Smoking during pregnancy and postpartum period has been associated with deleterious negative health outcomes of both maternal women and their children. Despite a decreasing trend of cigarette use during pregnancy, postpartum relapse rate among those women who quit during pregnancy remains high. Our study aims to synthesize the key characteristics of postpartum smoking relapse interventions and identify the effective ways to help maternal women maintain postpartum abstinence.

Methods: A systematic search of MEDLINE, PsychINFO, Academic Search Ultimate, CINAHL, Health Policy Reference Center, Web of Science, and Google Scholar was conducted from January 1st, 2015, through March 31st, 2022. Studies that are randomized controlled trials, published in English, and having relapse prevention services delivered in the postpartum period with abstinence outcome reported were eligible to be reviewed. Two reviewers extracted data based on PRISMA guideline and assessed the quality of eligible studies. Narrative data syntheses were conducted.

Results: A total of 23 studies met the inclusion criteria with 7,945 maternal women enrolled. Majority of these studies were developed in the U.S. and delivered in a community-based setting. Nineteen studies initiated the intervention during both pregnancy and postpartum periods whereas 4 studies initiated intervention in postpartum only. Abstinence rates varied (<10% to >90%) depending on different intervention types, outcome measures (e.g., 7-day point or continuous abstinence), and the lengths of follow-up. Average number of cigarettes smoked per day during pregnancy, breastfeeding initiation, intentions to quit, age, income, and depressive mood disorders were identified as barriers impacting postpartum abstinence.

Psychosocial counseling, financial incentives and social support are the most common and effective preventive strategies used in the programs included.

Conclusion: Psychosocial and behavioral support-based interventions, or multi-component aid services appear promising to improve postpartum smoking abstinence rate. Further research examining long-term effectiveness of postpartum smoking relapse prevention programs is warranted.

Board 308

Pregnant Latinas' perceptions on benefits and concerns of expanded carrier screening: A qualitative study

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Introduction

The American College of Obstetrics and Gynecology and the American College of Medical Genetics recommend carrier screening for all pregnant women regardless of race and ethnicity. Compared to carrier screening which only tests few diseases, expanded carrier screening (ECS) screens for hundreds of genetic diseases simultaneously. Currently, ECS is not routinely offered to all pregnant women. Before implementing ECS into routine clinical practice, it is important to understand the perceived benefits and concerns of ECS among pregnant women. This study explored such among pregnant Latinas who are an understudied and underserved population in genomics and public health research.

Methods

We conducted qualitative interviews with pregnant Latinas in their second or third trimester of pregnancy. A content-analysis approach was used to analyze the data. Using Nvivo 8, the emergent coding approach was used to group the findings into themes and subthemes.

Results

Thirty-two pregnant Latinas completed the interview. The benefits of ECS reported by them included helping prepare for the baby's arrival (34.4%), informing the baby's risk of having a genetic condition (34.4%), better knowing about their baby's health (6.3%), and ensuring that their baby would be born healthy (3.1%). Participants' expressed concerns about ECS included being overwhelmed by positive result (18.8%), concern about the accuracy of the ECS (15.6%), misunderstanding that the testing procedure would cause harm to both mother and the baby (15.6%), and concern about the cost of ECS (3.1%). After weighing both benefits and concerns, nearly all the participants (96.9%) believed that ECS should be offered to all pregnant women.

Conclusion

Our findings suggest that pregnant Latina's desire to be offered ECS by their obstetric providers. However, the concerns about ECS that should be considered when implementing ECS into routine clinical practice for pregnant women.

Board 309

The Impact of COVID-19 on Rural Patient's Diabetes Distress, Self-Care, and Quality of Life

Misra, Ranjita; Kirk, Brenna O

Background: Diabetes mellitus (DM) is a debilitating and complex chronic condition that influences patients' psychological issues and quality of life (QoL). West Virginia is a rural state with the highest national prevalence of diabetes (16.3%). DM patients experience diabetes distress i.e., the emotional burdens, stresses, and worries from managing the disease, which is distinct from depression and anxiety.

Objective: To examine rural DM patients' diabetes distress and its impact on depression/anxiety, compliance with diabetes self-care, and QoL during the COVID-19 pandemic.

Methods & Results: A statewide sample of 1541 participants with diabetes and comorbid chronic conditions (mean age = 59.6 ± 12.3 years; 65% females) completed an online survey. Diabetes distress (measured as total, emotional, regimen-related, interpersonal, and physician-related distress), QOL (mental and physical health), and diabetes self-care (diet, exercise, blood glucose monitoring, and medication adherence) were assessed using validated scales. Depression and anxiety were self-reported. Mean diabetes distress was low to moderate. Higher distress related to the emotional burden and regimen-related distress during the pandemic. Medication adherence and blood glucose monitoring (4-5 days/week) were higher than diet and exercise (2-3 days/week). Almost half of the DM patients (43%) reported having depression/anxiety. Multivariable logistic regression showed higher diabetes distress was predicted by younger age, lower health literacy, lower physical and mental health t-scores (QoL), and lack of adherence to a diabetic diet during the pandemic.

Conclusions: Follow-up studies are needed on healthcare providers' understanding of their patient's diabetes distress and counseling for diabetes self-care and depression/anxiety during routine clinical care.

Board 310

Burnout Related to Diabetes Distress Among Rural West Virginians Living with Diabetes: A Mixed-Method Analysis

Kirk, Brenna O; Misra, Ranjita; Khan, Raihan; Sambamoorthi, Usha

Background: Diabetes distress (DD) refers to the emotional burden and worry patients experience in managing diabetes. Distinct from depression and anxiety, DD is linked to poor self-management and worse health outcomes. West Virginia, the 3rd most rural state in the US, has the highest prevalence of diabetes mellitus (DM; 16.3%). This study explored rural West Virginians' experiences and perceptions of DD using an integrated mixed-method approach.

Methods: Semi-structured interviews (n=34), four focus groups (n=23), and surveys were conducted with participants of a 12-week diabetes and hypertension self-management program (DHSMP) implemented in WV churches. DD was quantitatively assessed using the 17-item DD Scale (DDS-17). Qualitative data were analyzed to identify major themes related to diabetes distress and were then integrated with quantitative survey data using MAXQDA software.

Results: The sample was 59.5% female; mean age was 62.1 ± 12.4 years. Qualitative analysis revealed four major themes coinciding with the theoretical domains of DD: emotional burden, interpersonal distress, provider-related distress, and regimen-related distress. Each theme had two sub-themes: patient experience, and coping strategies. Qualitative results confirmed

participants' quantitative DD scores across all four domains. HbA1c was positively associated with total DD, emotional burden, and regimen-related distress ($p < 0.01$). Women and those with a family history of diabetes were more likely to report experiences with DD, but not coping strategies. Participants with higher emotional burden and regimen-related distress were significantly more likely to qualitatively discuss coping strategies used to address those specific domains of DD. Interestingly, however, participants with higher provider-related distress were significantly less likely to report any strategies for coping or addressing that area of DD.

Conclusions: These results confirm the importance of increasing awareness, regularly screening for DD and supporting healthy coping strategies to improve self-care and diabetes outcomes among rural adults.

Board 311

An analysis of past and present tweets about monkeypox, 2006-2022

Kearney, Matthew, D; Bracy, Danny, P; Cronholm, Peter, K

Background: On May 21st 2022, the World Health Organization (WHO) reported outbreaks of monkeypox in 12 countries without endemic transmission of monkeypox virus. Perhaps unsurprisingly, misinformation about monkeypox disease proliferated online quickly following the WHO report, particularly through social media platforms. The purpose of the current study was to characterize Twitter content about monkeypox before and after the 2022 outbreak.

Methods: We conducted a retrospective content analysis of public tweets mentioning "monkeypox" from July 15th, 2006 – Twitter's launch date – to July 31st, 2022. English-language original tweets (i.e., not retweets) were eligible for analysis. Linguistic analysis software was used to identify clusters of terms and characterize patterns. Descriptive statistics were generated comparing audience engagement metrics pre- versus post-outbreak (i.e., retweets, likes).

Results: A total of 685,968 original tweets were collected. An average of 5,334 tweets were created in the years 2006-2021 compared to 616,626 in the first seven months of 2022. The most common themes were case reports (18.3% tweets), vaccination (11.0%), infection control and prevention behaviors (7.1%), and at-risk populations (6.9%). On average, post-outbreak tweets received significantly more retweets than pre-outbreak tweets (4.2 versus 2.1; $p < .001$). Of the top 20 most retweeted post-outbreak tweets, with an average=10,826.1 retweets, six were from users subsequently banned for violation of Twitter's content policies.

Conclusions: Our findings indicate a pressing need to improve the responsiveness of online content moderation tools to combat misinformation's spread during emerging public health crises. Vastly more tweets were created following the 2022 outbreak than the 15 years prior. While we observed that Twitter's content moderation ultimately removed many misinformation posts, some were still able to reach and engage broad audiences, which may explain lasting stigma surrounding the virus towards gay, bisexual, and other men who have sex with men, as well as low uptake of prevention behaviors like vaccination.

Board 312

Fluidity in Reporting Gender Identity Labels in a Diverse Sample of Transgender and Gender Diverse Youth: Implications for Prevention Research

Ocasio, Manuel, A; Kampa, Kathryn, T; Harper, Gary, W; Lightfoot, Marguerita; Fernandez, Maria, I

Introduction: Emerging literature highlights substantial health inequities among transgender and gender diverse youth (TGDY). Despite recognition that gender identity is fluid, most researchers view it through the static lens of cross-sectional data or baseline reports in longitudinal studies. Although data reduction is often necessary for meaningful analysis, subsuming all TGDY into one group obfuscates differences that may contribute to health inequities. This study aims to help researchers recognize the fluidity of gender identities and implications for health and prevention efforts.

Methods: Patterns of change in reporting gender identity over time was examined in a sample of 235 TGDY from Louisiana and California. Participants were recruited as part of an HIV prevention and treatment study from May, 2017 to August, 2019; assessments occurred at four-month intervals over 24 months. At each assessment, participants reported gender identity and sex assigned at birth. We classified participants into nine gender identity reporting patterns. A non-transgender identifying category was created for participants who did not identify as transgender, but selected a gender different from their sex assigned at birth.

Results: Participant age ranged from 15 to 24 years; 69% were from California. Thirty-eight percent were Latinx and 34% were non-Latinx Black/African American. A majority changed identities at least once (77%) and 17% changed more than twice. Over half were classified into the Alternating Pattern. Compared to baseline, there was a notable increase in non-transgender identifying participants and a concurrent decrease in participants who identified as transgender at 24 months.

Conclusion: The considerable variation in selected gender identity labels over time suggests misclassification may occur when data from a single time point is used to define gender identity. By empirically documenting patterns of gender identity labels among TGDY, our research lays the foundation for future studies to elucidate associations between shifting gender identities and health outcomes.

Board 313

“Hi Everyone, I Guess I’m Mainly Posting for Emotional Support”: An Analysis of Social Media Discourse Related to Caregiving for Older Adults with Alzheimer’s Disease and Related Dementias (AD/ADRD)

Pickett, Andrew, C; Valdez, Danny; Sinclair, Kelsey, L; Kochell, Wesley; Fowler, Boone, C; Werner, Nicole, E

Purpose: Incidence rates of Alzheimer’s Disease and Related Dementias (ADRD), the fifth leading cause of death for older adults, are expected to increase dramatically in coming decades as the population of the US ages. Caregiving for individuals living with ADRD can be intensive, requiring round-the-clock care to aid with performing routine activities, administering medication(s), and managing other health concerns.

Methods: We collected a dataset of 6,256 Reddit posts (totaling 1,571,856 words) from two subreddits (r/Alzheimer’s and r/dementia)-- specialized forums for discussing users’ concerns related to ADRD-- dated from May- June 2022. In our first analysis, we used Latent Dirichlet Allocation to identify salient topics across the corpus and map topic overlap in individual posts. We then manually coded a random sample of 626 (i.e., 10%) for specific caregiving concerns.

Results: From the LDA, primary themes across the dataset related to financial and legal concerns, social support and digital interaction, and assisted living facilities. A cluster of smaller, overlapping topics related to caregiving experiences and ADRD behaviors (e.g., dietary changes, toileting, nighttime behaviors) were also observed. Emergent themes from the manual coding process include the need for social support systems, interrelated nature of ADRD symptoms, and overall stress of caregiving.

Conclusions: Our results suggest caregivers of individuals living with ADRD seek a variety of forms of support from social media (e.g., subreddits). Among the most salient topics in the data, individuals sought informational support with the complex legal and regulatory framework associated with caregiving. Further, individuals sought and provided emotional support related to burnout and exhaustion. Finally, caregivers sought solidarity and advice in dealing with the complex and interrelated symptomology of individuals in their care. Consistent with others, our findings suggest a need for additional support systems for caregivers of individuals living with ADRD.

Board 314

Fueling the Midnight Oil: Sleep quality, caffeine, and weight loss methods in college-attending young adults

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Purpose: College students are particularly vulnerable to known indicators of poor sleep quality, such as higher caffeine intake and increased stress, but studies examining eating habits in relation to sleep quality in the college population have had generally inconclusive results. The purpose of this study was to consider total caffeine consumption per day and diet and exercise to lose weight as potential indicators of sleep quality among the undergraduate college student population.

Methods: Participants (n=400) were sampled from full-time undergraduate students at a large, mid-Atlantic university in 2016 via anonymous surveys regarding sleep quality, total caffeine consumption (past 7 days), dieting and exercise to lose weight, total alcohol drinks (past 7 days), GPA, and stress. Sleep quality was assessed using the Pittsburgh Sleep Quality Index (PSQI) and data were analyzed using SAS JMP Version 16.

Results: Stepwise multivariable linear regression controlling for alcohol use, GPA, biological sex, and stress showed significant increases in PSQI score among those with higher total alcohol drinks, tremendous stress, and more than average stress, indicating reduced sleep quality. Additionally, identifying as male and possessing less than average stress levels significantly decreased PSQI scores. Caffeine consumption remained significant until psychosocial factors were added into the model ($B= 0.003\pm 0.001$, $p = 0.0035$). However, sensitivity analyses on categories of caffeinated beverages showed that reported total caffeine consumption from soda remained significant across all models, significantly increasing PSQI ($(B= 0.01\pm 0.004$; $p=.0054$).

Conclusions: Caffeinated sodas and energy drinks reflected more significant decreases in sleep quality than other sources of caffeine. Alcohol consumption and stress levels were also found to be inversely associated with sleep quality. Future interventions aimed at improving sleep quality among undergraduate college students may consider focusing efforts on managing caffeine and alcohol consumption, as well as stress reduction.

Board 315

Higher county-level social vulnerability is associated with higher rates of adult obesity: Social vulnerability and adult obesity in the State of Florida, 2017

Patel, Shreeya; Hollar, Lucas, T.; Biggs, Erin

Purpose: The purpose of this study was to examine the associations between social vulnerability and obesity among Florida counties.

Methods: We conducted an ecological cross-sectional study among 67 Florida counties. To measure county-level social vulnerability, we utilized the CDC Social Vulnerability Index (SVI), which is composed of four themes: socioeconomic status, household composition and disability, minority status and language, and housing type and transportation. County-level adult obesity prevalence in 2017 was obtained from the Robert Wood Johnson Foundation and University of Wisconsin Population Health Institute's County Health Rankings. For each county, we dichotomized the four SVI themes and obesity prevalence by the median. We used logistic regression to examine associations between each SVI theme and obesity prevalence among Florida counties.

Results: We found that Florida counties with higher values for the socioeconomic status theme (OR: 12.15, 95% CI: 1.97-74.94), the household composition and disability theme (OR: 11.19, 95% CI: 2.07-60.39), and the housing type and transportation theme (OR: 7.64, 95% CI: 1.07-54.52) were associated with a higher obesity prevalence. However, we found Florida counties with higher values for the minority and language theme, had a lower obesity prevalence (OR: 0.04, 95% CI: 0.01-0.41).

Conclusion: Our results indicate that county-level social vulnerability might influence obesity prevalence among Florida counties. SVI can be used as a predictor of obesity prevalence in FL counties. Our findings can help in the design of obesity prevention and intervention programs to match better the contexts of counties in Florida. Identifying socially vulnerable populations can be helpful for contextualizing resource allocation and the implementation of interventions to address obesity within Florida counties. Future studies should analyze association between SVI and Obesity on a national level to determine the extent to which SVI can provide valuable insight for designing obesity interventions.

Board 316

Utility of Amazon's Mechanical Turk for Conducting Alcohol-related Social Network Analyses: A Comparison of Two Distinct Egocentric Network Data Collection Approaches

Patterson, Megan S.; Russell, Alex M.; Barry, Adam E.

Introduction: Commonly employed sampling procedures utilizing college students (e.g., classroom convenience samples, campus-wide emails) have significant limitations. Amazon's Mechanical Turk (MTurk) represents a social and behavioral research tool that can account for these limitations. Few studies, however, have utilized MTurk to explore impacts of social influences on alcohol-related behaviors via social network analysis. Herein, we compare and contrast alcohol-related egocentric network data obtained via (a) MTurk, and (b) a traditional convenience sample of college students collected via e-mail solicitation at a large, public southwestern university.

Methods: The sample collected via MTurk consisted of 309 college students; the sample collected via e-mail solicitation consisted of 695 college students. Respondents reported demographics, personal alcohol use (measured via the AUDIT-C), and perceived drinking behaviors of five personally identified close peers. Chi-square analyses and t-tests assessed differences across samples, and hierarchical linear regression analyses assessed the effect ego- and network-level variables had on respondent's drinking behavior while controlling for sampling technique.

Results: Egocentric network variables explained 27.6% of the variation in respondents' AUDIT-C scores over and above individual-level predictors, regardless of sampling technique ($R^2 = 0.444$, $p < .001$). Being an MTurk respondent was related to higher AUDIT-C ($\beta = .158$, $p < .001$) scores after controlling for demographic and network variables. Compared to the email solicitation sample, MTurk respondents were more demographically diverse ($\chi^2 = 10.81$, $p < .001$) and reported more demographically diverse peer networks ($t = 48.56$, $p < .001$).

Conclusions: MTurk offers a fast, affordable, high quality method of data collection and is well-suited for egocentric network studies examining peer influences on alcohol use. Data collected within college student samples on MTurk offers several advantages when compared to a sample of college students solicited via e-mail attending a single university, including improved diversity/representation among egos and networks.

Board 317

Mental health impacts of social connection within a group-based exercise program: A social network analysis

Patterson, Megan S.; Heinrich, Katie M.; Prochnow, Tyler

Introduction: Depression is the leading cause of disability worldwide, with an estimated 300 million people (and counting) suffering globally. Regular physical activity and positive social connections are two strategies for combating depressive symptoms. The purpose of this study was to assess if social connections created within a group-based exercise program were inversely related to depressive symptoms among its members.

Methods: 62 members of a group-based exercise program (73% female, age=34.6±9.9 years; 88% non-Hispanic white) completed online surveys measuring demographic information, physical activity, depressive symptoms, and social networks. Each respondent indicated who in the program they attended exercise classes with regularly. Linear network autocorrelation models (LNAM) determined associations between individual's depressive symptom scores and those of their social ties (i.e., network effects) while accounting for age, sex, race, physical activity scores, how long someone had been a member of the program, how many classes they attended per week, and network measures, including egocentric network density, in- and out-degree, closeness, and betweenness. All analyses were conducted in R.

Results: Depressive symptoms ($R^2 = .26$) were significantly related ($p < .05$) to age ($PE = .10$, $SE = .04$), sex ($PE = 2.15$, $SE = .90$), length of membership in the program ($PE = -.76$, $SE = .33$), egocentric density scores ($PE = -.06$, $SE = .02$), closeness scores ($PE = -.03$, $SE = .01$), and network effects ($PE = -.10$, $SE = .05$).

Conclusion: This study supports the inverse relationship between social connectedness and depressive symptoms. In this network of group exercisers, being younger, female, having more densely connected direct ties, and being more reachable/central within the network was related

to lower depressive symptom scores. Further, people were likely to connect with others who were dissimilar to them based on depressive symptoms, potentially creating an opportunity for social support to transfer between dyads. Finally, longer-term participation was related to lower depressive symptoms. Longitudinal research could determine if the connections created within the program help diminish depressive symptoms over time.

Board 318

Associations between Positive Childhood Experiences and Adulthood Incarceration

Suh, Ganghui; Ou, Tzung-Shiang; Lin, Hsien-Chang

Background: Adverse childhood experiences (ACEs) have been shown to be linked to juvenile and adulthood criminal behaviors. In addition to adversity, there have been attempts to consider whether positive childhood experiences (PCEs) provide resiliency against future adverse health outcomes. However, there is a lack of understanding if this resiliency is replicable against future criminal behaviors in adulthood. This study investigated the association between PCEs and adulthood incarceration among the population with ACEs.

Methods: Data from the National Longitudinal Study of Adolescent to Adult Health (Add Health) Waves 2-5 (1995-2018) were used, with 1,375 participants <18 years old at Wave 2 who had one or more ACEs before adulthood and had no juvenile incarceration records. PCEs were measured by the sum of seven types of PCEs, including positive school experience, relationship with parents, self-efficacy, hobbies, safe neighborhood experiences, higher education expectations, and good general health (all in presence or absence). Two outcomes of adulthood criminal behaviors were examined, including initiation and persistence of prison entry, based on the history of incarceration across the 3 waves. Two logistic regressions were conducted to investigate the association between the number of PCEs and the two incarceration outcomes.

Results: Among the participants with ACEs, PCEs demonstrated negative associations with the initiation of adulthood incarceration (without prior juvenile incarceration) (OR=.80, p=.002) and the likelihood of adulthood prison reentry (without prior juvenile incarceration) (OR=.82, p=.02).

Conclusions: The increase in positive childhood experiences is associated with a reduction in the risk of initiation and persistent incarceration during adulthood. Intervention efforts should target increasing overall positive experiences in intrapersonal perceptions, family and interpersonal relationships, and living environments to maximize prevention effects against future criminal behaviors.

Board 319

The Mediating Roles of Mental Problems and Racial Differences in the Linkage Between Social Media Use and E-cigarette Use Among American Youth

Zheng, Xia; Yang, Meng; Li, Wenbo; Lin, Hsien-Chang

Purpose: An emerging line of research documented that social media use is linked to e-cigarette use among youth. However, less is known about the underlying mechanisms and racial differences for the effects. To fill this gap, our study examined the mediating roles of internalizing and externalizing problems in the association between social media use and e-cigarette use among youth. It also investigated racial differences in the aforementioned mediation associations.

Methods: The sample included a total of 4,913 U.S. nationally representative youth respondents in the Population Assessment of Tobacco and Health (PATH) Study Waves 3-5 (2015-2019, weighted N=12,375,593). Two weighted generalized structural equation models (GSEM) were used to examine the longitudinal mediation processes between youth's social media use frequency (Wave 3) and past-30-day e-cigarette use status (Wave 5) through internalizing and externalizing mental problems (Wave 4), respectively. Invariance tests were used to examine the racial group difference in the mediation processes.

Results: The results from the two mediation models showed that youth with high social media use frequency at Wave 3 were more likely to use e-cigarettes at Wave 5 (total effect: ORs=1.21 and 1.22, respectively, both $ps < 0.001$). Internalizing and externalizing problems at Wave 4 mediated the aforementioned associations (mediation proportions: 5.05% and 5.66%, respectively). Results of the invariance tests indicated a significant difference between Whites and non-White groups in the mediation processes (both $ps < 0.001$).

Conclusions: Mental health problems followed by social media use served as a risk factor for e-cigarette use among U.S. youth. Our study suggests that interventions aiming to improve youth's mental health could subsequently temper e-cigarette use among youth social media users. Additionally, racial groups are differentially influenced by social media use and the following mental health problems. A health disparity lens is warranted in implementing the suggested interventions in tempering e-cigarette use among youth.

Board 320

Reliability and initial validity for measures of drunkorexia: Application of the Theory of Planned Behavior to Drunkorexia

Speed, Shannon; Ward, Rose Marie; Branscum, Paul; Barrios, Veronica; Budd, Kristen; Stackpole, Lucy; Haus, Lauren

Purpose: The current study evaluates the initial validity and reliability of an instrument measuring constructs from the Theory of Planned behavior (TPB) applied to three drunkorexia behaviors (restriction, excessive exercise, and purging).

Methods: College students were recruited (some were offered extra credit) and could opt to be entered to win a \$10 Amazon gift card for participation. TPB constructs (attitudes, perceived norms, perceived behavioral control (PBC), and intentions) for each behavior were evaluated using a newly developed survey. Analyses were performed to confirm the reliability (e.g., internal consistency) and validity: face and content validity via cognitive interviewing and an expert panel, as well as construct validity via confirmatory factor analysis. Common methods to evaluate drunkorexia were also implemented (Drunkorexia Motives and Behaviors Scale [DMBS] and Compensatory Eating and Behaviors in Response to Alcohol Consumption Scale [CEBRACS]). All procedures had IRB approval

Results: Most students identified as "Woman" (63.2%, $n = 306$), White (80.0%, $n = 387$), and freshmen (28.6%, $n = 138$), with an average age 20.41 years ($SD = 2.13$). Intentions, attitudes, and PBC were positively and significantly related to alcohol intake and drunkorexia behaviors (DMBS, CEBRACS), while perceived norms were found to have a significantly negative association. While confirmatory factor analysis confirmed good construct validity for the three scales, not all relationships between variables were significant. Therefore, exploratory factor analysis was needed to further confirm validity. New combined variables had good Cronbach's

alpha scores ($>.70$), and EFAs confirmed internal consistency reliability and good construct validity for restriction, exercise, and purging.

Conclusions: Investigators aiming to understand influential factors associated with drunkorexia decision-making (intention, attitudes, perceived norms, and PBC) can use these scales to explore more nuances of which drunkorexia behavior (restriction, excessive exercise and throwing up) is problematic among their priority population.

Board 321

Social media noise drowns out official and responsible health messaging: Deep-learning insights from a collection of tweets related to the global monkeypox outbreak

Valdez, Danny; Edinger, Andy; Lorenzo-Luaces, Lorenzo; Rutter, Lauren, A.; Bollen, Johan

The monkeypox outbreak provides a case study for the difficulties faced by public health messaging in the context of widespread social media use. Our study highlights challenges faced by public health officials in providing accurate and timely information relative to the amount of social media noise inherent to this topic.

Objective: This study applies natural language processing (NLP) and deep-learning tools to underpin longitudinal discussions about monkeypox between May-June 2022.

Methods: We allocated a randomly selected (N=10,000) tweets about monkeypox for analysis using the following neural-network pipeline: (1) the Sentence Bi-directional Encoder from Transformers (S-BERT) to generate embeddings (or semantic similarity between tweets), (2) Principal Components Analysis (PCA) to reduce the complexity of our matrices, and (3) Uniform Manifold Approximation Projection (UMAP) with K-means clustering to project our data to project the evolution of topics over time. We lastly applied inductive qualitative coding to verify the content and scope of computer-identified topics.

Results: We identified seven distinct clusters. Clusters identified earlier in our data collection seemingly contained misleading information about monkeypox, including viewing monkeypox a sexually transmitted infection, assumptions monkeypox exclusively affects men who have sex with men, or deriding the outbreak and public health response as a political maneuver. Later topics, which followed early indications of misinformation, originated from verified public health outlets disseminating information on harm, precautions, and vaccine eligibility.

Discussion & Conclusion: Within a few weeks of the first reported monkeypox cases, mostly false, misleading, irrelevant, or damaging information started to circulate on social media. Official institutions, including the World Health Organization (WHO), acted promptly providing case reports and accurate information within weeks, but were overshadowed by rapidly spreading social media noise and virality of misinformation. Our results point to the need for real-time monitoring of social media content to optimize public health responses.

Board 322

Family and peer factors associated with youth deception in tobacco use

Yang, Meng; Lin, Hsien-Chang

Purpose: The validity of self-reported tobacco use among youth has been challenged. Studies have identified the discordance between self-reported tobacco use and nicotine-related biomarker information among youth. However, no research has been conducted to investigate

factors that are associated with youth deception when self-reporting tobacco use. In this study, we adapted Bristol and Mangleburg' model of youth deception to investigate youth's perceived parental reaction, normative peer influence, and tobacco advertisement, and associated youth deception in tobacco use.

Methods: This study used restricted data from Wave 5 (2018-2019) youth questionnaire of the Population Assessment of Tobacco and Health Study. Youth participants who completed the biomarker collection were included (unweighted N=1,569; weighted N=16,465,172). Youth deception in tobacco use was assessed by contrasting self-reported current tobacco use and urinary cotinine levels (39.1 ng/ml as the threshold to dichotomize tobacco use and non-use). Weighted logistic regression was employed to investigate whether perceived parental reaction, perceived normative peer influence, and tobacco advertisement exposure were associated with deception in tobacco use.

Results: Youth participants who perceived that their parents would be upset if the youth were caught using tobacco were less likely to deceive their tobacco use status (OR=0.11, $p<0.01$). Youth participants who were exposed to tobacco product advertisements were more likely to deceive their tobacco use status (OR=2.33, $p<0.01$). Youth's perceived normative peer influence was not significantly associated with their deception in tobacco use ($p>0.12$).

Conclusions: Our findings concluded that youth's perceived parental reaction and tobacco product advertisement exposure were significantly associated with youth deception in tobacco use. Researchers and pediatricians surveilling and estimating youth tobacco use solely based on self-reported data should consider aforementioned factors. Future studies should consider employing a longitudinal study design to further examine and confirm the effect of family, peer, and social factors on youth deception behavior in tobacco use.

Board 323

Using Public Health Surveillance Data to Explore the Relationship between Adverse Childhood Experiences and Fruit and Vegetable Intake among Adolescents

Mendoza, Ivan, D.; Banda, Jorge, A.; Giano, Zachary; Hubach, Randolph, D.

Purpose: Adverse childhood experiences (ACEs) have been related to numerous diet-related chronic diseases, yet few studies have examined the role ACEs have on specific diet patterns. The purpose of this study was to assess the extent to which total ACEs are associated with daily fruit and vegetable intake in a nationally representative sample of US adults.

Methods: 2019 Behavioral Risk Factor Surveillance System (BRFSS; N = 418,268) data were used to conduct multiple regression models. Total ACEs included the summed responses from the domains of abuse, household challenges, and neglect. Fruit and vegetables were reported by number of times consumed per day. The two fruit items included fruit (fresh, frozen, and canned) and fruit juice. The four vegetable items included leafy greens, fried potatoes, non-fried potatoes, and other vegetables. All fruit and vegetable items were analyzed separately to see which specific items drove the relationship between total ACEs and total FVI. The analysis controlled for poor mental health days, sex, age, ethnicity, income, body mass index, and physical activity.

Results: Total ACEs were positively associated with daily intake of fried potatoes ($\beta=.008$, $p=.025$), other potatoes ($\beta=.008$, $p=.049$), and other vegetables ($\beta=.024$, $p<.001$). Total ACEs

were negatively associated with daily intake of fruit (fresh, frozen, and canned) ($\beta = -.016$, $p < .001$). ACEs had non-significant relationships with leafy greens and fruit juice.

Conclusions: Findings suggests that those with increased ACEs scores report increased consumption of fried potatoes, non-fried potatoes, and other vegetables, and less of fruit. This could be attributed to toxic stress experienced by those with ACEs, particularly impacting those who use food as a stress coping mechanism. Findings underscore the need for public health and practitioners to support policies and programs which alleviate levels of toxic stress and help prevent future ACEs.

Board 324

Mental Health of Families with Autism Spectrum Disorder: A Systematic Review

Smith, Alison; Merrill, Ray, M

Introduction: This study explores parental and sibling mental health challenges associated with a child having autism spectrum disorder (ASD). Potential moderator and mediator effects of the association between ASD and family mental health are also considered, along with interventions and potential positive effects associated with ASD children.

Methods: A systematic review was conducted of peer-reviewed manuscripts involving mental health effects on mothers, fathers, and siblings of children with ASD. The accessed literature came from an electronic search conducted through October 2021. Well-known databases were used to access literature.

Findings: Because of behavioral problems of children with ASD, as well as additional emotional, communication, sleep, and delayed social problems, parents of children with ASD experience greater familial stress. Mothers tend to experience more stress, anxiety, and depression than fathers do. Fathers tend to experience stress due to the mother's mental health challenges as well as a lack of confidence in raising a child with ASD. Added stress for both parties comes from strained marital relationships and other factors. Studies of siblings of children with ASD have shown positive effects in terms of self-concept and social competence, whereas other studies have shown negative effects such as low levels of prosocial behaviors, feelings of loneliness, and delays in developing social skills. Older male siblings have greater risk for behavioral and emotional difficulties and siblings later in the birth order have greater risk of feeling lonely and socially dissatisfied.

Discussion: Mothers gain greater positive outcomes by receiving assistance from family, friends, and professionals. Fathers feel empowered when involved in educational interventions that demonstrate how to care for their child with ASD. Constructive outcomes are achieved for parents of children with ASD through interventions.

Board 325

Attention Deficit Hyperactivity Disorder and Comorbid Mental Health Problems Associated with Increased Rate of Injury

Merrill, Ray, M; Merrill, Andrew, W; Madsen, M

Purpose: To describe the influence of attention deficit hyperactivity disorder (ADHD) and co-occurring mental health conditions on the rate of selected injuries.

Methods: A retrospective cohort study design was employed using medical claims data from the Deseret Mutual Benefit Administrators (DMBA). Mental health conditions, injury, medication, and demographic data were extracted from claims files for ages 4-64, years 2016-2020.

Results: Approximately 51.8% of individuals with ADHD had one or more co-occurring mental health conditions (anxiety [37.0%], depression [29.9%], autism spectrum disorder (ASD) [3.6%], bipolar disorder [4.7%], obsessive compulsive disorder (OCD) [2.4%], schizophrenia [0.9%], and manic disorder [0.2%]). The rate of injury was 1.33 (95% CI 1.27 – 1.39) for ADHD only versus no ADHD and 1.62 (95% CI 1.56 – 1.68) for ADHD and comorbid mental health conditions versus no ADHD, after adjusting for age, sex, salary, and year. Cases with ADHD but no co-occurring mental health conditions alone versus no ADHD were at increased rate of each of 12 types of injury. The increased rate was noticeably more pronounced for ADHD cases with one or more co-occurring mental health conditions versus no ADHD. The greatest increased rate of injury was among individuals with schizophrenia, followed by bipolar disorder and OCD. Co-occurring autism disorder does not increase the rate of injury, but lowers the rate. Finally, the number of co-occurring mental health conditions among ADHD cases was positively associated with increased injury rate (6% for one, 30% for two, 65% for three, and 129% for four).

Conclusions: ADHD is positively associated with an increased rate of injury. Co-occurring mental health conditions further increase the rate of injury among those with ADHD.

Board 326

Within- and Cross-Mental Health Disorder Correlations in Husband-and-Wife Pairs

Merrill, Ray, M

Background

Mental health disorders can adversely affect relationships and are heritable. Yet, there is a high prevalence of mental illness in spouses and partners of those with mental illness. This study will assess within- and cross-mental health disorder correlations in husband-and-wife pairs.

Methods

A cross-sectional study design was employed using medical claims data from the Deseret Mutual Benefit Administrators (DMBA), linked to demographic information from employee eligibility files, 2020. Analyses involved 21,027 contract holders aged 18–64 (68.6% male, 31.4% female), with sub-analyses on 16,543 married individuals. Summary statistics, as well as rates, and rate ratios adjusted for age, sex, and dependent child status were calculated to describe the data.

Results

The rate of stress is 19.2%, anxiety is 26.4%, and depression is 23.6% in spouses of contract holders with the same respective disorders. Rates of stress, anxiety, and depression in a spouse are greatest if the contract holder has schizophrenia. Rates of mental disorders in wives of male contract holders experiencing mental disorders tend to be greater than the rates of mental illness in husbands of female contract holders experiencing mental disorders. Rates of stress, anxiety, and depression in spouses of contract holders tend to be 2-3 times greater when the contract holder has a mental health disorder, after adjusting for the contract holder's age, sex, dependent child status, and difference in age within husband-and-wife pairs. However, differences in the magnitude of observed associations varied. The rate of a spouse having

stress is 5.5 times greater if the contract holder has schizophrenia (vs. does not have schizophrenia), whereas the rate of a spouse having stress is 1.4 times greater if the contract holder has sleep apnea (vs. does not have sleep apnea).

Conclusion

Mental health disorders in spouses of contract holders are greater if the contract holder has a mental health disorder, more so when the contract holder has more serious mental illness. Both within- and cross-mental disorder correlations exist. These results have implications on relationship quality and the mental health of offspring.

Board 327

A Formative Evaluation of an Adolescent Online E-Cigarette Prevention Program

Hanson, Carl; Merrill, Ray, M

Purpose. This study is a formative evaluation of an adolescent online e-cigarette prevention program (Clearing the Vapor) giving attention to identifying higher risk adolescent populations, confirming the theory of change, and assessing short-term outcomes.

Design/methodology/approach. The evaluation was conducted using online pretest and posttest survey data collected from adolescent program participants age 10-18 from 2019 to 2021. Analyses included risk ratios on perceived risk, self-efficacy and behavioral intentions across demographic variables. Pretest and posttest comparisons were conducted with analysis involving the t test and the McNemar test.

Findings. Prevalence of e-cigarette use was higher among males, older adolescents, and in racial/ethnic groups other than Whites and Asians. Adolescents with lower confidence to say “no” were more likely to use e-cigarettes. Greater perception of harm by using e-cigarettes increased the likelihood of adolescents feeling competent to explain to peers the harmful effects of e-cigarettes. Mean change in commitment levels to not use e-cigarettes increased for males and females, all ages, and racial/ethnic groups other than non-Hispanic Blacks and American Indians. Improvement in non-Hispanic Whites was significantly greater than for non-Hispanic Blacks, American Indians, and Hispanics.

Originality. Improvement in programming should give careful attention to the incorporation of more prevention activities and to materials tailored specifically to racial/ethnic participants. As a theory of change, findings support the utility of the Clearing the Vape prevention programming to address perceptions of harm that e-cigarettes are safe, confidence in explaining the harmful effects of use, and the development of skills to resist use.

Board 328

Can CrossFit and Weight Training Physical Education Prime Students for Lifelong Physical Activity Behaviors?

Heinrich, Katie M; George, Jason; Crawford, Derek A; Beattie, Cassandra M; Brin, Halle

Purpose: The World Health Organization urges action to increase physical activity among the 75-85% of youth not meeting guidelines. Traditional physical education (PE) programs emphasize team sports rather than developing movement competency, work capacity, and confidence. Conversely, CrossFit (CF) workouts focus on “constantly varied, high intensity, functional movements.” Weight training (WT) classes also provide movement education to

students. No research has examined impacts of CF and WT on high school students' movement competency, work capacity, and confidence, which we examined over the 2021-22 school year.

Methods: High school students taking CF (N=20, 35% female) and WT (N=19, 16% female) PE classes participated. Measurements (movement competency for squat, lunge, push, pull, brace, hinge, and rotation; work capacity for Karen [150 wallball-throws for time] and Cindy [as-many-repetitions-as-possible in 20 minutes of 5 pull-ups, 10 push-ups, and 15 squats]; and Sense of Self survey) were taken in August, December and May. For non-normal data, chi-square analyses were conducted using Friedman's test and Wilcoxon Sign Rank tests; otherwise 2X3 RMANOVAs were conducted.

Results: Significant (non-parametric) improvements were found for the squat (CF and WT $p < 0.001$), lunge (CF and WT $p < 0.01$), push (CF $p = 0.013$, WT $p = 0.003$), pull (WT $p = 0.004$), hinge (CF $p = 0.001$, WT $p = 0.016$), and rotation (CF $p < 0.001$, WT $p = 0.034$). Significant main effects of time were found for Karen, $f(2,16) = 18.351$, $p < 0.001$, $\eta^2 = 0.696$ (CF $\Delta -3:23$, WT $\Delta -3:30$), and Cindy, $f(2,28) = 18.70$, $p < 0.001$, $\eta^2 = 0.573$ (CF $\Delta +188.5$ repetitions, WT $\Delta +141.4$ repetitions). There was a significant group-by-time interaction for confidence to "take part in any sport/physical activity that I choose," $f(2, 50) = 5.327$, $p = 0.008$, $\eta^2 = 0.176$, where the CF group increased and the WT decreased.

Conclusions: Both groups experienced significant improvements in movement competency and work capacity; the CF group improved confidence. Future research should longitudinally examine more participants and track impacts on long-term physical activity behaviors.

Board 329

Physical Activity and Cortisol Regulation: A Meta-Analysis

Moyers, Susette, A.; Hagger, Martin, S.

Purpose: Physical activity participation is associated with effective stress coping, as indicated by decreases in both physiological stress reactivity and perceived stress. Quantifying the effect of physical activity on the diurnal regulation of one key physiological stress indicator, the stress hormone, cortisol, across studies may demonstrate the extent to which physical activity participation is associated with diurnal HPA-axis regulation.

Method: We meta-analytically synthesized research examining relations between physical activity participation and indices of HPA-axis regulation: the diurnal cortisol slope and the cortisol awakening response. We also examined candidate moderators of the association.

Results: The analysis revealed a small, non-zero negative averaged correlation between physical activity and the diurnal cortisol slope ($r = -0.043$, 95% CI [-0.080, -0.004]). Examination of sample sociodemographic differences, study design characteristics, cortisol measurement methods, and physical activity variables as moderators revealed few changes in the averaged physical activity-diurnal cortisol slope correlation. Findings did not support lower levels of variability in the mean cortisol awakening response at higher levels of physical activity participation, and moderator analyses showed little evidence of reductions in the observed heterogeneity for this effect. Findings suggest higher physical activity is associated with a steeper diurnal cortisol slope. However, the cortisol awakening response did not differ by physical activity level.

Conclusion: Future studies testing the physical activity and cortisol regulation association should use standardized measures of physical activity including frequency, intensity, and duration of participation, follow guidelines for better quality cortisol sampling collection and analysis, and test relations in large-scale empirical studies to confirm the direction and causality of the effect.

Board 330

Measuring the Importance Fathers Place on Modelling Healthy Behaviors

Young, Michael; Zullig, Keith; Donnelly, Joseph; Fluegeman, Stephanie

Purpose: Father involvement has been associated with a number of positive child outcomes. Fathers can serve as important models for their children. Limited work, however, has been done relative to role fathers can play in modeling healthy behaviors. The purpose of this study was to develop and validate a scale to measure the importance fathers place on modeling healthy behaviors for their children.

Methods: Researchers developed 14 statements related to fathers and health; scored on a four-point Likert-type scale. Two rounds of review by an expert panel resulted in an eight-item scale. Men ($n=369$, mean age 36.6, sd 11.1) enrolled in a responsible fatherhood program, completed a questionnaire which included the eight items. The questionnaire responses were randomly assigned to group A or group B and subjected to psychometric analysis.

Results: Chi-square tests showed no difference between Group A and Group B on demographic variables. Responses from Group A were subjected to exploratory factor analysis, with varimax rotation, resulting in two factors, factor 1, a five-item factor labeled, “modeling positive health behaviors,” and factor 2, a three-item factor labeled “avoiding negative health behaviors.” Factor 1 loadings ranged from .598 to .875 (eigenvalue = 3.50, $\alpha = .84$), explaining 43.8% of the variance. Factor 2 loadings ranged from .699 to .792 (eigenvalue = 1.23, $\alpha = .76$), explaining 15.5% of the variance. Confirmatory factor analysis confirmed the existence of these two factors in Group B. Factor 1 loadings ranged from .612 to .877 ($\alpha = .76$). Factor 2 loadings ranged from .705 to .798 ($\alpha = .68$).

Conclusions: Preliminary results suggest the scale displays adequate estimates of validity and reliability. Future research should consider using the scale in examining the effects of responsible fatherhood programs, especially when measurement brevity is important.

Board 331

“I don’t have room for another one”: Reproductive interconception care barriers and facilitators among women recently pregnant and homelessness

Galvin, Annalynn M.; Akpan, Idara N.; Lewis, Melissa A.; Walters, Scott T.; Thompson, Erika L.

Background: Women experiencing homelessness may benefit from reproductive interconception care to reduce unintended pregnancy and short interpregnancy intervals. To improve reproductive interconception care outcomes, it is critical to understand barriers and facilitators using the perspectives of women with recent lived experiences within a local continuum of care. This sequential explanatory mixed-methods study aimed to identify specific information, motivation, behavioral skills, and macro-level barriers and facilitators to reproductive interconception care for women recently pregnant and homeless.

Methods: For 2016-2019 Pregnancy Risk Assessment and Monitoring System data (n=100,706 postpartum US women; 2.4% homeless), adjusted logistic regression models estimated odds ratios between housing status and reproductive interconception care outcomes. Based on significant findings, qualitative semi-structured interviews were developed for local women recently pregnant and homeless in 2022 (n=12). Participants were interviewed about barriers and facilitators to significant reproductive interconception care outcomes. Interview transcriptions were transcribed, coded, and thematically analyzed.

Results: Since quantitative findings demonstrated that postpartum women experiencing homelessness in the last 12 months had lower odds of attending a postpartum maternal visit (aOR=0.45, 95%CI 0.37, 0.56) and higher odds of having a provider conversation about birth intervals (aOR=1.30, 95%CI 1.07, 1.57) when compared to similar stably housed women, interview guides specifically focused on attending maternal postpartum visits and birth spacing. Key themes included information (e.g., misconceptions about pregnancy and postpartum period), motivation (e.g., attitudes about interconception care experiences, perinatal social influences on birth spacing), behavioral skills (e.g., perceived self-efficacy related to attending maternal postpartum visit), and system-level factors (e.g., housing effects on future child desire).

Conclusion: Findings may facilitate current interconception research, clinical practices, and public policy that use the opportune interconception period to reduce unintended pregnancy, short birth intervals, and adverse birth outcomes in future pregnancies, thus improving pregnancy outcomes and the health of women recently homeless and pregnant.

Board 332

Cervical cancer screening and associated factors among rural women

Shambi, Dame Banti; Nigussei, Tadesse

Background: Cervical cancer screening is the method of early detection of cervical cancer before occurrence of the disease. Cervical cancer is a major public health problem worldwide, and low-and middle-income countries are particularly affected.

Purpose: To assess the cervical cancer screening and associated factors among rural women in West Ethiopia 2022.

Methods: A community-based cross-sectional study was conducted. Multi stage sampling technique was used to select 867 study participants. The data were collected using a structured interviewer-administered questionnaire. Data were entered using EpiData manager version 4.6 and exported to SPSS version 26 for analysis. Multivariable logistic regression analysis was performed and variables with a p-value of <0.05 were taken as significant factors associated with cervical cancer screening. Qualitative data were collected by in-depth interviews, translated, transcribed, coded, categorized, and triangulated with quantitative data.

Result: From the total of 852 study participants, only 124 (14.6%) of women have been screened cervical cancers. history of sexual transmitted infection [AOR =4.48, 95% CI: 1.80,11.19], history of gynecologic examination [AOR =2.68, 95% CI: 1.57,4.60], not prefer gender for screening [AOR=4.51, 95% CI: 2.75,7.40], Adequate knowledge [AOR=4.86, 95% CI: 2.48,9.50], favorable attitude [AOR=4.29, 95% CI: 2.47,7.45], high perceived susceptible [AOR=4.05, 95% CI: 2.37,6.95], and low perceived barriers [AOR=2.30, 95% CI: 1.30,4.05] were significant factors for cervical cancer screening

Conclusion: The study revealed the cervical cancer screening is low. History of sexually transmitted infection, history of gynecological examination, not gender preference for screening, knowledge, attitude, perceived susceptibility and perceived barriers were factors associated for cervical cancer screening. Hence, to improve cervical cancer screening, raising awareness of women is recommended.

Board 333

Menthol cigarette use and transitions to other tobacco products by sex, race/ethnicity, and age group in U.S. adults

Park, Hyejin

Introduction: Menthol cigarettes are the major flavored tobacco product among U.S. adults followed by the popularity of emerging flavored electronic nicotine delivery system (ENDS). The use prevalence of menthol cigarettes among U.S. adults tends to decrease by time from 2010 to 2016. However, lack of evidence between the transition behavior between menthol cigarettes and flavored ENDS are overrating the reduction of menthol cigarette use by concealing the possibility of menthol cigarette users switching to other flavored tobacco products like flavored ENDS. This research longitudinally examines the transition behavior between menthol cigarette use and flavored ENDS use among U.S. adults.

Methods: We applied a Markov multistate transition model to the Population Assessment of Tobacco and Health Study waves 1-4 (2013-2018). We examined transition rates between menthol cigarette, non-current, ENDS and dual use states and estimated hazard ratios for age, sex, and race/ethnicity.

Results: Menthol cigarette use was persistent among adults, with 61.8% (95% Confidence Interval (CI) 59.2% to 63.9%) of exclusive menthol cigarette users and 19.4% (95% CI 17.6% to 21.1%) of dual users remaining menthol cigarette users (either exclusive or dual) after one wave. Among ENDS users, 74.7% (95% CI 62.7% to 76.8%) of exclusive ENDS users and 12.0% (95% CI 10.4% to 14.2%) of dual users remained ENDS users (either exclusive or dual) after one wave. Dual users of menthol cigarettes and ENDS were less likely to stop using menthol cigarettes than exclusive menthol cigarette users (Hazard Ratios 12.5, 95% CI 11.1 to 14.0). Transition rates varied among sociodemographic groups.

Conclusion: A substantial proportion of adult menthol cigarette smokers transitioned across flavored tobacco use states over the course of 4 years. Race had greater odds of transitioning from menthol smoking to non-current smoking. Findings suggest health disparity in menthol cigarette smoking transitions among U.S. adults.

Board 334

Internalized Homonegativity and Somatic Anxiety Distinguish Former from Current Cigarette Smokers and may Represent Cessation Targets for Intervention in LGB Communities

Robinson, Ty, A; Smith, Nathan, G; Obasi, Ezemenari, M; Reitzel, Lorraine, R

Purpose: Lesbian, gay, and bisexual (LGB) adults smoke at higher rates than the overall U.S. population (20% vs 14%). Understanding what characterizes successful cessation may aid in intervention development and, ultimately, the reduction of smoking-related health inequities in the LGB community. Psychosocial stressors and their cognitive and physical sequelae have

been associated with smoking and smoking relapse in a quit attempt; although most smokers want to quit, motives for continued smoking include the perception that it relieves stressor-attributed anxiety symptoms. These factors, however, have been understudied among LGB adults. Guided by Hatzenbuehler's integrative mediation framework, this study examined how a non-adaptive cognitive response to LGB minority stressors (namely, the internalization of societal homonegativity) might relate to the manifestation of physical anxiety symptomatology and reduce the likelihood of being a former (versus current) smoker.

Methods: Participants (N=77; Mage=42±14; 62% cisgender male; 30% cisgender female; 8% transgender; 49% White; 37% Black; 11% Latinx) were recruited from Houston, Texas, as part of a larger study on LGB health. Participants in this analysis smoked ≥ 100 cigarettes/lifetime, and successfully quit (n=23 former smokers) or remained daily or occasional smokers (n=54 current smokers). The Lesbian, Gay, and Bisexual Identity Scale and the State-Trait Inventory for Cognitive and Somatic Anxiety were used to assess internalized homonegativity and somatic anxiety, respectively. Mediation was tested with the PROCESS macro for SPSS.

Results: Current smokers experienced higher internalized homonegativity rates than former smokers (former=0, current=1; $b=.6495$, $p=.0168$). Internalized homonegativity was positively associated with somatic anxiety ($b=.1650$, $p=.0008$), and the association between internalized homonegativity and smoking status was mediated through somatic anxiety [$.0002$, $.6539$]. The proportion of the mediated effect was 17.1%.

Conclusion: This preliminary work may suggest that internalized homonegativity and somatic anxiety represent malleable intervention targets for LGB smokers who want to develop different minority stress coping methods.

Board 335

Dietary Behaviors and Nutritional Beliefs Among Black Men with Previously Undiagnosed Diabetes and Prediabetes

Rony, Melissa; Quintero-Arias, Carolina; Osorio, Marcela; Ararso, Yonathan; Leigh, Chike; Norman, Elizabeth; Ravenell, Joseph, E; Wall, Stephen, P; Lee, David, C

Objective: This study uses qualitative interviews with Black men with HbA1c levels consistent with previously undiagnosed diabetes or prediabetes to better understand possible contributing factors to the disproportionate diabetes burden.

Research Design and Methods: We recruited Black men without a prior diagnosis of diabetes from Black-owned barbershops in Brooklyn, NY. Participants were screened using point-of-care HbA1c tests. Among those with HbA1c levels within prediabetes or diabetes thresholds, qualitative interviews were conducted to uncover prevalent themes related to their overall health status, health behaviors, utilization of healthcare services, and experiences with the healthcare system.

Results: 52 Black men without a prior diagnosis of diabetes and a HbA1c reading at or above 5.7% were interviewed. Many participants stated that they do not eat regularly. The most common reasons participants mentioned for eating one meal a day or less are time constraints and the belief that it is healthier. Furthermore, while all participants expressed that diabetes has to do with abnormal blood sugar levels, many participants were unsure of how one develops diabetes. Lastly, some participants mentioned insulin injections, loss of a limb, and death as consequences of diabetes.

Conclusion: Our study identifies factors that may contribute to disparities in healthcare diabetes burden and diabetes outcomes amongst Black men with previously undiagnosed prediabetes and diabetes. To help alleviate the disparity in diabetes among Black men, healthcare providers should take a more active role in helping their patients understand type 2 diabetes, and the differences between type 1 and type 2 diabetes and the risk factors. Additionally, providers should promote sustainable healthy eating habits such as encouraging patients to look for more lean proteins and low glycemic foods when eating out. Lastly, this study highlights the need for accessible diabetes education and culturally competent nutritional education in high-risk populations, such as Black communities.

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Healthcare-seeking Behaviors Among Black Men with Previously Undiagnosed Diabetes and Prediabetes

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Objective: Given the significant disparities in diabetes burden, this study uses qualitative interviews with Black men with HbA1c levels consistent with previously undiagnosed diabetes or prediabetes to understand possible factors for underutilization of healthcare.

Research Design and Methods: We recruited Black men from Black-owned barbershops in Brooklyn, NY, who were screened using point-of-care HbA1c tests. Among those with HbA1c levels within prediabetes or diabetes thresholds, qualitative interviews were conducted to uncover prevalent themes related to their overall health status, health behaviors, utilization of healthcare services, and experiences with the healthcare system. We used a theoretical framework from the William and Mohammed Medical Mistrust Model to guide our qualitative analysis.

Results: 52 Black men without a prior diagnosis of diabetes and a HbA1c reading at or above 5.7% were interviewed. Many participants stated that they regularly seek medical advice from someone other than their primary health provider. The most common sources participants stated were family members and friends, and self-help resources. Furthermore, some participants expressed medical mistrust as the primary reason for not consulting with their healthcare provider about their health questions.

Conclusion: Our study identifies factors that may contribute to disparities in healthcare utilization and diabetes outcomes amongst Black men with previously undiagnosed prediabetes and diabetes. To help alleviate the disparity in diabetes burden among Black men, healthcare providers should take a more active role to engage in understanding the specific healthcare needs and expectations of each patient, especially those who are in high-risk populations.

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Translating Community Level Health Data into Multifunctional Urban Green Spaces

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Purpose: This research focused on testing a multidisciplinary, community-involved health behavior framework to drive the UGS design process. The aim of this study was: 1) to use community level data and feedback to better understand the intersectionality of physical health, psychological wellbeing, and social cohesion across the lifespan and 2) utilize collected data to

translate research into meaningful systemic policy and environmental health related changes by create a multifunctional UGS plan that enhances nature therapy, natural play, and sports and recreation.

Methods: A mixed methods approach included analyzing community health assessment data (236 survey responses), community forum and survey feedback (157 survey responses), local urban green space inventory, and environmental assessment and impact data to develop a design plan that maximize the greatest potential health benefits for the greatest proportion of the population in a community.

Results: Community health data indicated a strong relationship between the availability of places to be physically active in the community and higher ratings of mental (aOR = 1.80) and physical (aOR = 1.49) health. Qualitative data indicated community members prioritized the need for more nature trails and more multifunctional parks and greenspaces.

Conclusions: The creation and utilization of the proposed community-inclusive and health behavior focused framework resulted in a UGS design that prioritized the needs of the community and provided evidence-informed strategies to improve the health of local residents. This paper provides unique insight into novel measurement and methods for translational health behavior research.

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Predictors of abstinence among young adult smokers enrolled in a real-world social media-based smoking cessation program

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Purpose: Social media channels are promising for delivering smoking cessation support to young adult smokers. This study aimed to identify factors associated with abstinence after treatment among young adult smokers enrolled in a real-world Facebook-based smoking cessation program.

Methods: The analytic sample consisted of 261 participants (aged 18-30) who completed both the baseline survey and the follow-up survey at 3 months.

Results: In multivariable logistic regression analyses, participants aged 25-30 years (vs. 18-24 years old), past 30-day e-cigarette users (vs. non-users), and past 30-day alcohol users (vs. non-users) were less likely to report 7-day abstinence at the 3-month follow-up. Non-daily smokers (vs. daily smokers) and those with past-year quit attempts (vs. those without past-year quit attempts) were more likely to report abstinence.

Conclusions: Findings suggest that e-cigarette use and alcohol use among young adult treatment-seeking smokers was associated with a lower rate of quitting smoking, perhaps because these behaviors are associated with heavier smoking. Smoking cessation programs for young adults may need to explicitly address other nicotine product and substances used with cigarettes, such as e-cigarettes and/or alcohol.