

March 23, 2021 3:00PM EST

COVID-19 – Group 3

Poster 21-10

COVID-19 Stress, Food Insecurity, Personal Agency, and Intentions as Predictors of Fruit and Vegetable Consumption among College Students

Levy, Taylor M.; Williams Jr., Ronald D.; Odum, Mary; Housman, Jeff M.; McDonald, Jacquelyn D.

Purpose: The purpose of this study was to explore the relationship between COVID-19 stress, food insecurity, and fruit and vegetable (FV) consumption among college students. Methods: A sample of 101 college students (mean age = 23.6 years, 75.2% female), recruited via email, participated in a pilot test of a 34-item survey created using modified scales from existing instruments to measure COVID-19 stress, food insecurity, FV personal agency (perceived behavioral control and self-efficacy), FV intention, and FV consumption. Results: Cronbach alpha reliability analyses indicated high internal consistency for all scales: COVID-19 stress ($\alpha = .854$), food insecurity ($\alpha = .778$), FV personal agency ($\alpha = .900$), FV intention ($\alpha = .824$), and FV consumption ($\alpha = .766$). Multiple linear regression analyses indicated COVID-19 stress, food insecurity, personal agency, and intention explained 32.8% of the variance in FV consumption scores ($F = 12.454, p < .001$). Personal agency ($\beta = .349, p < .001$) and intention ($\beta = .301, p < .001$) were the strongest predictors of FV consumption. COVID-19 stress and food insecurity were not statistically significant predictors of FV consumption. Conclusions: Both intention to consume FV and FV consumption personal agency were moderate predictors of FV consumption among college students. While research indicates that periods of high stress and food insecurity may impact the ability to consume a healthy diet of FV, these factors were not significant in this study; however, the instrument used in this pilot study produced reliable data which suggests it can be used to explore these relationships using larger college populations or non-college populations who may experience differing rates of stress and food insecurity.

Poster 21-15

Examining the use of a Facebook group to share COVID related child physical activity information

Edmeade, Jendayj; Prochnow, Tyler; Ross, Allison

Purpose: Social media is an important form of communication because of its vast reach. Understanding what communication types are most effective can inform best practices around information dissemination. This study investigated social media communication during initial school closing and school re-entry planning phases of the COVID-19 pandemic to determine types of social media posts most effective at disseminating information, differences between phases, and sentiments relayed through comments.

Methods: A mixed method design was used to examine posts across two phases of the pandemic within a public Facebook group (roughly 1,500 members) created to promote school-based physical activity. Phase I comprised onset of school closures through release of national school

re-entry guidelines. Phase II included release of guidelines through start of the school year. A total of 418 posts were made between March 1, 2020 – August 1, 2020. One-way ANOVAs were used to determine differences between content types and reactions, shares, and comments. Independent t-tests tested for differences in effectiveness between phases of the pandemic. Inductive analysis produced themes from comments shared during both phases.

Results: Posts about National and Local Policy and Guidance had more comments compared to posts about Civic Engagement. Feel Good Stories had the highest number of reactions. Group members reacted more to posts made during Phase II, which mainly consisted of Policy and Guidance (86%). Four major themes of Information and Resources, Personal Disclosures, Questions and Concerns, and Support for Educators emerged.

Conclusions: Using social media to share local and national guidance during a pandemic may be a promising strategy to disseminate information, encourage discussion, and provide member support. The interaction and communication in a Facebook group appeared to be a source of social and informational support for members during the onset and initial school reentry phases of the COVID-19 pandemic.

Poster 21-18

Factors related to indoor bar and restaurant visits during the COVID-19 pandemic

Maddock, Jay E.; Suess, Courtney

Social distancing is one of the most effective ways to prevent the spread of COVID-19. Eating or drinking inside at a bar or restaurant is considered a high-risk behavior because individuals spend time indoors without wearing masks. In this study, we examined who was most likely to have eaten inside in a restaurant or drank at a bar between the start of the pandemic and November 2020. A nationwide on-line survey was started by 3,008 people with 2,600 providing complete data. Among the participants, 33.0% reporting having eaten inside a restaurant and 20% having drank inside a bar. These behaviors were highly related with only 4.6% of people who had been to a bar not reporting going to a restaurant, therefore only restaurant goers were examined in this paper. Bivariate analyses showed no significant differences in having eaten inside a restaurant by gender, age, education or having tested positive for COVID-19. White, non-Hispanic and Hispanic respondents were more likely to eat in a restaurant than Black respondents. People with pre-existing conditions including hypertension, asthma, COPD and emphysema were less likely to have eaten in a restaurant (all $p < .001$). People who reported being very fiscally (44.9%) or socially (45.1%) conservative were significantly more likely to have eaten inside at a restaurant than people who reported being socially (27.3%) or fiscally (25.1%) liberal (all $p < .001$). People who reported being not at all cautious (53.2%) were also significantly more likely to eat inside a restaurant than those who reported being extremely cautious (24.7%, $p < .001$). Those with higher perceived susceptibility and severity were less likely to have eaten in a restaurant ($p < .001$). About a third of adults in this sample have eaten inside at restaurants. Political tendencies, perceived susceptibility and severity and pre-existing conditions were stronger predictors of this behavior than demographics.

Poster 21-39**Telephone-based support for physical activity during the COVID-19 pandemic**

Ylitalo, Kelly; Cox, Wendy; Lucas, Raejone; Smith, Jordan; Pettee Gabriel, Kelley; Rafalski, Matthew; Gill, John; Niceler, Brock

Introduction: Physical activity (PA) is essential to maintain physical and mental well-being during the COVID-19 pandemic. The pandemic presents an emerging opportunity to transition in-person health promotion activities to telephone-based activities. The purpose of this paper is to describe a telephone-based PA support strategy among race/ethnically diverse patients during the COVID-19 pandemic.

Methods: Adult patients at a large, Federally Qualified Health Center with a referral to an on-site exercise facility were eligible to receive telephone support with a personal fitness advisor following a March 2020 shelter-in-place mandate. Surveys about pre-pandemic PA habits and environmental characteristics were initiated within two weeks of the mandate. Follow-up calls by fitness advisors every 2 weeks thereafter used motivational interviewing and goal-setting strategies to support PA.

Results: From March 23-July 23, 2020, 122 patients were contacted, and 72 participated in ≥ 1 phone call with a fitness advisor. Participants were, on average, aged 51.3 (± 11.6) years, 87.5% female, 31.9% Hispanic/Latino, 19.4% non-Hispanic white, and 47.2% non-Hispanic Black. During the first 4 months of the program, fitness advisors completed 270 phone calls, with 3.8 (± 2.1) calls per participant. Patients with a home treadmill participated in twice the rate of calls compared to those without (RR=2.22; 95%CI:1.35,3.64; $p=0.002$), but no other behavioral or resource characteristics predicted participation rate. Patients who were meeting PA guidelines prior to the mandate reported significantly more planned exercise in a week (100.0% vs. 55.3%; $p<0.001$), more exercise days at home (5.0 vs. 1.7; $p<0.001$), and a higher proportion of visits accomplishing personal PA goals (57.0% vs. 39.7%; $p=0.11$) than patients who were not meeting guidelines.

Conclusions: Pre-pandemic PA behavior appeared to predict pandemic PA behavior, but more work is needed to identify long-term PA changes worldwide. Telephone-based support for PA is feasible and may support healthy behaviors both during and after the pandemic.

Poster 21-51**What happens when gyms are not available? How COVID-19 affected regular gym users' physical activity**

Beattie, Cassandra, M; DeBlauw, Justin; Besenyi, Gina.; Mailey, Emily; Heinrich, Katie, M

Introduction: Physical activity (PA) plays a crucial role in managing mental and physical health. Fitness facilities (i.e., gyms, clubs, studios) provide settings for PA. Access to these spaces is related to meeting PA recommendations (i.e., engaging in moderate, vigorous, and muscle-strengthening PA). COVID-19 restrictions, including shutdowns, compromised the use of fitness facilities nationwide, therefore limiting an important PA resource. **Purpose:** The purpose of this study is to understand shifts in PA patterns among fitness facility users as a result of COVID-19 restrictions and shutdowns. **Methods:** An online survey, administered from April-June 2020, asked adult participants to identify and describe PA changes as a result of COVID-19 restrictions. Responses of somewhat/frequent fitness facility users (N=542; M age=36.9 \pm 14.9 years; 67.7% female) were analyzed. Participants answered questions including PA behaviors, fitness facility

use and changes in PA location and mode due to COVID-19, as well as open-ended questions explaining how their PA behaviors changed. Results: Total PA minutes before (461.8 ± 309.3) and during (455.9 ± 341.2) COVID-19 among fitness facility users remained consistent. Approximately 91% ($n=493$) somewhat or strongly agreed that they changed their PA location due to COVID-19. Only 1.6% ($n=9$) reported sometimes or frequently attending fitness facilities during COVID-19. Most respondents, 83.9% ($n=455$) somewhat or strongly agreed that they changed their PA mode due to COVID-19. Participants' PA mode changes were split into 8 themes: home bodyweight (plyometrics, calisthenics, stretching, yoga, Pilates); trails (walking/hiking); outdoor activities (running, walking, jogging); biking (indoors/outdoors); virtual training (Zoom, DVD, YouTube, Facebook, livestreams); housework (indoors/outdoors), dancing, and home-gym equipment use. Conclusion: Results suggest participants were positive deviants due to their creativity in maintaining PA behaviors despite fitness facility closures. Researchers should focus on the 8 identified themes to develop suggestions for continued PA participation. Additionally, governments should consider prioritizing alternative opportunities for PA within communities.

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Mental Health

Poster 20-07

Campus Integration Moderates the Association Between Psychological Resilience and Anxiety Among Underrepresented College Students

Steinhardt, Mary; Wright, Jaylen; Whyne, Erum; Lehrer, Henry; Woo, Jihun

Purpose: Generalized anxiety disorders are among the most prevalent mental health concerns for college students. Underrepresented students are at an increased risk for anxiety given the unique academic and social challenges of adjusting to college, including a sense of isolation. A critical component of reducing anxiety is the ability to recover from adversity, termed psychological resilience. The association between resilience and anxiety may be heightened by strong integration with the college campus. Therefore, we examined whether campus integration moderated the association between resilience and anxiety among underrepresented minority college students. Methods: Students (N = 446; Mean age = 19.06; 62.4% first-generation) at a large public institution completed a Qualtrics survey near the end of the semester. Hierarchical multiple regression examined the moderating effect of campus integration (5-item Purdue Gallup Index, e.g., My professors care about me as a person) on the association between resilience (6-item BRS) and anxiety (7-item GAD-7). Demographic variables were included as covariates. Post-hoc probing of the interaction and simple slopes were performed using methods outlined by Aiken and West. Results: The main effect for resilience was negatively associated with anxiety ($\beta = -.42, p < .001$), however there was a non-significant association between campus integration and anxiety ($\beta = -.05, p > .05$). Analysis revealed a significant interaction effect ($\beta = -.09, p < .05$), such that campus integration moderated the relationship between resilience and anxiety. The final model accounted for 21% of the variance in anxiety ($F = 10.48, p < .001$). Analysis of simple slopes indicated that greater resilience was associated with lower anxiety more so for participants with higher versus lower campus integration. Conclusion: Given the vulnerability of underrepresented minority students on university campuses, future research should explore whether enhancing psychological resilience and campus integration fosters mental health and reduces generalized anxiety.

Poster 20-28

Temporal Trends and National Patterns in Adolescent Mental Health Service Use for Depression Across Service Settings

Lu, Wenhua

Background: Untreated major depression can lead to various negative health and social consequences among adolescents. This study aimed to examine national patterns, temporal trends and disparities in US adolescents' use of mental health services for 12-month major depression across different settings. Methodology: Data were drawn from adolescents aged 12 to 17 (N = 109,578) who participated in the annual, cross-sectional National Survey on Drug Use

and Health from 2011 to 2017. Patterns, time trends and disparities in adolescents' service use in specialty mental health, educational, and general medical settings, two or more settings, and combination of different settings were examined using Pearson's χ^2 test and multivariable logistic regression, adjusting for survey years, sampling weights, non-response bias, and non-coverage bias. Results: Among adolescents with depression (N=11,877), 49.2% reported having received any type of treatments. Overall, service use in specialty mental health settings was the most common, followed by educational and general medical settings. Across the survey years, significant increase was observed in adolescents' service use in specialty mental health (OR = 1.09, $p < 0.001$) and general medical settings (OR = 1.06, $p < 0.05$), whereas the rate of school-based service use remained stable. Around 40% of adolescents received services in two or more settings each year, with no significant change over time. Among multi-setting service users, the combination of specialty mental health and educational settings was the most common. Adolescents' age, race, gender, family income, and family and school experiences significantly influenced their service use in different settings. Conclusions: Findings highlight the importance of providing integrative care in individual settings and call for more collaborative efforts to facilitate linkages between service settings. Strengthened funding and policy support are critical to improve safety-net mental health services for adolescents from uninsured, low-income, and racial/ethnic minority families.

Poster 20-30

The Role of Sleep Duration in Changing Narratives of Multiple Suicide Attempts among Adolescents

Xiao, Yunyu; Agle, Jon

Background: Suicide attempts and suicide-related mortality have increased among adolescents in recent years. These trends have implications for etiology and prevention of suicide and suggest the need to study emerging risk factors, including sleep duration. Purpose: This study estimated the trends of association between sleep duration and suicide attempts among the US nationally representative samples of high school-attending adolescents from 1991 to 2017. Methods: Data were drawn from a sample of 68,301 adolescents in 9th-12th grades from 1991 to 2018 National Youth Risk Behaviour Surveys. Suicide attempts measured the number of attempts (0, 1, 2-3, 4 or more times) in the past year. Sleep duration was categorized as short (<6 hours), normal (6-8 hours), and long (>8 hours). Multinomial logistic regression analyses were used to assess trends of association between sleep and suicide attempts, controlling for depressive symptoms, health behaviors, and bullying. Survey year was treated as a continuous variable and was used to examine the linear trend. Clustering effect and sampling weights were further adjusted to ensure that the sample was nationally representative and the statistical inferences were appropriate. Results: Over time, short sleep duration was consistently associated with greater risks of 1 (Relative Risk Ratio [RRRadj]=2.72), 2-3 (RRRadj=2.93), and 4+ suicide attempts (RRRadj=5.73). Long sleep duration was also found to increase the risk of 4+ attempts (RRRadj=2.52). Such associations have been strengthened over time. Trends were generally similar by race/ethnicity; racial/ethnic minorities had greater risks of suicide attempts compared to White adolescents. Females were more likely to have 1 (RRRadj=1.45) and 2-3 (RRRadj =1.88) attempts, but less likely to have 4+ attempts (RRRadj =0.71) than males. Conclusions: Sleep quality is complex, and this study suggests variation above or below recommended sleep duration is associated with emerging changes in incidence of suicide attempts.

Poster 21-03**Addressing Stress Reduction, Sleep, and Depressive Symptoms in Adolescents: Feasibility of a Trust-building Intervention**

Bender, Anna E.; McVoy, Molly; Moore, Shirley M.

Purpose: Depressive symptoms are on the rise among adolescents in the United States. The most effective approaches to adolescent behavior change, such as stress reduction and sleep, involve parents. Trust is a key factor in relationships; therefore, family-based interventions with trust-building components may be key to addressing stress reduction and sleep to reduce depressive symptoms in adolescents. Therefore, our purpose was to assess the initial feasibility, acceptability, and safety of the novel Trust-building depressive symptom Self-Management Together (TRUST) intervention among adolescents with moderate depressive symptoms.

Methods: Adolescents aged 14-17 years with moderate depressive symptoms and a parent were recruited for an exploratory, pilot randomized controlled trial. The experimental intervention, TRUST, included adolescent/parent trust-building exercises and evidence-based stress reduction and sleep training. Feasibility of the intervention was assessed using exit surveys with participants and percentage rates of recruitment, screening, enrollment, retention. Acceptability of the TRUST intervention was assessed using exit surveys of adolescents and parents. Safety was evaluated using adverse event reports completed by the research team and intervention evaluation forms completed by participants.

Results: Eighteen adolescents and a parent were enrolled in the study. Among families indicating interest in the study, 31% completed screening and 70% of those screened met criteria for enrollment. Among families that enrolled in the study, 63% completed the intervention. In weekly and final intervention evaluations, participants found the intervention groups to be acceptable and made positive comments about the content. Remarks made in the exit surveys and evaluation forms suggested guidance for intervention refinement, which included greater attention to practicing stress reduction techniques. No adverse events were reported during the trial.

Conclusions: Preliminary evidence supported the feasibility, acceptability, and safety of a trust-building intervention for adolescent stress reduction, sleep, and depressive symptom in adolescents with moderate depressive symptoms.

Poster 21-12**Discrimination and mental health experiences among US-born adolescents of undocumented Latino immigrant parents**

Munoz, Alex; Obasi, Ezemenari, M.; Grzywacz, Joseph; Granger, Douglas; Hernandez, Daphne, C.

Background: Although it is expected that discrimination places undocumented immigrants at risk for poor mental health, their US-born children may also be at risk. Discrimination-related stressors have increased among the Latino community, yet the absence of direct assessment of parental documentation status poses as a barrier to understanding the mental health disparities of Latino adolescents. This oversight is particularly pernicious considering that Latino children are the fastest-growing child immigrant population.

Purpose: To determine the potential mental health vulnerabilities of US-born Latino adolescents with undocumented parents regarding discrimination experiences.

Methods: Self-identifying Latino immigrant parents and their US-born youth (12-16 years) participated as part of a larger feasibility study examining salivary cortisol among US-born adolescent-immigrant parent dyads in Houston, TX (September 2019-January 2020). Parents self-reported their documentation status. Youth self-reported discriminating experiences based on racism, bullying, and disrespect at school (7-item Hispanic Stress Inventory-Adolescent Discrimination Stress subscale), health care discrimination (7-item Health Care Discrimination), depression (8-item Patient Health Questionnaire Adolescents), and anxiety (7-item General Anxiety Disorder Screener-7 Adolescents). Descriptive statistics and Pearson correlations between the discrimination and mental health variables were conducted.

Results: Nineteen US-born adolescents of undocumented parents participated [Adolescent: Mean age=14 (SD age=0.40), 37% female]. On average, discrimination (Mean=8.32, SD=.86), health care discrimination (Mean=2.37, SD=.61), depression (Mean=5.26, SD=1.08), and anxiety (Mean=5.05, SD=.91) were reported. A strong correlation was observed between discrimination and depression ($r=.55$, $p<.05$). Strong correlations were also observed among health care discrimination and depression ($r=.54$, $p<.05$) and health care discrimination and anxiety ($r=.52$, $p<.05$). Correlations were significantly prevalent among boys [discrimination-depression ($r=.63$, $p<.05$); health care discrimination-depression ($r=.65$, $p<.05$), and -anxiety ($r=.81$, $p<.05$)].

Conclusions: Despite their legal status, US-born Latino adolescents are at risk of experiencing depression and anxiety based on discriminating experiences centered on racism, bullying, and disrespect, in addition to health care discrimination.

Poster 21-44

The role of parental acceptance on body esteem among US college students

Wang, Jingyi; Brown, Andrew; Luo, Juhua; Chow, Angela

BACKGROUND: About two-thirds of college women and a third of college men are dissatisfied with their body. Low body esteem strongly predicts the development of eating disorders, a condition with the highest mortality rate in all mental illnesses. Parental acceptance is positively associated with female body satisfaction. Despite approximately one third of men being dissatisfied with their bodies, previous research has overlooked the effect of parental acceptance on body satisfaction in males. Therefore, this study examines the effect of perceived parental acceptance on body esteem for both sexes.

METHODS: A sample of 532 college students (White = 77%; female = 325) at a midwestern university were surveyed. Participants' body esteem, self-esteem, and perceived parental acceptance were assessed by the Body Esteem Scale-Revised, Rosenberg's Self-Esteem Scale, and the 30-item Children's Report of Parent Behavior Inventory subscale, respectively. Hierarchical linear regressions were conducted to examine the relationship between perceived parental acceptance and body esteem. Bootstrapping techniques were utilized to explore the mediation role of self-esteem in this relationship.

RESULTS: For females, perceived maternal acceptance predicted all body esteem subdimensions, and self-esteem fully mediated these associations. Conversely, maternal acceptance was not significantly associated with any subdimension of male body esteem. For males, perceived paternal acceptance was significantly associated with all body esteem subdimensions, and the associations remained significant after controlling for the effects of self-esteem. Notably, paternal acceptance was not significantly associated with any subdimension of female body esteem.

CONCLUSIONS: Perceived parental acceptance is positively related to body esteem of both sexes, but the effects of parental acceptance on body esteem were only significant in same-sex parent-child dyads, not in opposite-sex dyads. Self-esteem fully mediated the effect of perceived maternal acceptance on female body esteem subdimensions, but it only partially mediated the association between perceived paternal acceptance with the male body esteem subdimensions.

Poster L21-12

Differential Effects of Family, Peer, and Romantic Relationships on Adolescent Mental Health

Story, AlliGrace; Gardner, Antonio, J.; Hunt, Barry, P.

Purpose: Research has shown that 49.5% of adolescents have experienced a mental health disorder and that many mental health disorders onset during adolescence. African American adolescents may be at higher risk for more severe mental health problems than the White population and may also be less likely to use mental health services. There is limited research addressing effects of family, peer, and romantic-partner social support on adolescent mental health. The purpose of this study was to assess whether these types of relationships differ in their effect on adolescent mental health using data collected through the National Survey of American Life – Adolescent Supplement (NSAL-A).

Methods: This study examined psychological disorders along with risk and protective factors among 1170 African American and Caribbean Black adolescents aged 13-17 years. Data were collected through face-to-face and telephone interviews. A chi-square test of independence was conducted to assess relationships between family, peer, and romantic partner support variables and adolescent mental health. Significance was set a priori at .05 for statistical analyses.

Results: Results indicated that aspects of family, peer, and romantic partner social support were related to twelve-month prevalence of any psychological disorder in adolescents. Twenty-three family social support variables were significantly related to adolescent mental health. Four of the peer social support and two romantic partner social support variables were significantly related to adolescent mental health.

Conclusions: Results of the study support past findings that have shown social support to be an important factor in adolescent mental health. Results also suggest that family, peer, and romantic partner social support may have different relationships with adolescent mental health problems. Most notably, family social support seemed to have a stronger relationship with twelve-month prevalence of any psychological disorder in adolescents than peer or romantic partner social support.

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Physical Activity

Poster 20-25

Predicting Beneficial Exercise Behavior among College Students in Recovery: A Social Network Analysis

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AAHB Research Scholars Mentoring Program

Background: Exercise is especially beneficial for individuals recovering from addiction. In addition to improved physical, emotional, and mental health, exercise is related to longer sobriety for addiction recovery. Because college students have high addiction risk, it is important to understand individual and social factors related to exercise behaviors for students in recovery. Social network analysis (SNA) is a method that tests how individual attributes and within-group relationships influence targeted outcomes. The purpose of this study was to use SNA to understand exercise behaviors within a group of college students in addiction recovery. Methods: Using SNA, this study assessed the relationship between exercise and sobriety, mental health variables, and social connections among a network of students involved in a campus recovery community (CRC). Exercise scores were determined by the Godin Leisure Time Exercise Questionnaire (Godin LTEQ), where scoring 24 or higher indicated engaging in beneficial levels of exercise. Results: Logistic regression analysis revealed a significant model ($R^2 = .598$, $p < .0001$) predicting whether CRC members scored a 24 or higher on the Godin LTEQ. Length of sobriety ($OR=1.240$, $p=.020$), higher stress ($OR=1.389$, $p=.024$), lower depression ($OR=.789$, $p=.021$), having fewer network ties ($OR=.448$, $p=.019$), and being connected directly to others scoring a 24 or higher on the Godin LTEQ ($OR= 7.100$, $p=.037$) were significant predictor variables in the model. Conclusion: This study provides evidence of a relationship between sobriety, mental health, and exercise, as well as interpersonal influences on exercise behaviors. Incorporating exercise opportunities as part of CRC programming may help students stay sober. These results suggest that “who” someone is connected to matters more for exercise than number of network connections. Future research is needed to determine directionality of these variables, as well as replicability across other networks.

Poster 21-22

Fostering Community in Behavioral Research: Case Study of a High Intensity Functional Training Intervention

Heinrich, Katie M; Kurtz, Brady K; Patterson, Meg; Barry, Adam; Crawford, Derek A
AAHB Research Scholars Mentoring Program

BACKGROUND AND PURPOSE: High dropout (>50%) from exercise programs is oftentimes due to perceived lack of “fit” or feeling unwelcome. Developing a sense of community (SOC; i.e., belongingness, mattering to others, commitment to togetherness) may facilitate adherence. This study examined effects of fostering SOC within a high-intensity functional training (HIFT) intervention.

METHODS: Participants (N = 30; 57% female; age = 36.7±4.5 years) were recruited for an 11-week randomized controlled study to examine effects of manipulating training intensity by heart rate variability (HRV). Participants were randomized to intervention (HIFT+HRV) or comparison (HIFT) groups, yet exercised together five days/week during 60-minute morning, early afternoon, or evening sessions. Daily workouts systematically varied and were individually modified as needed. Coaches fostered community through supportive and encouraging positive interactions and frequent social media communications. An online post-intervention survey included an adapted SOC in Sport scale and eight group dynamics questions. Answers ranged from 1= “strongly disagree” to 5= “strongly agree.”

RESULTS: All participants adhered except one (i.e., non-study-related emergency dental surgery) and 28 completed a survey. The 14 SOC items and 5 subscales were all rated between “agree” to “strongly agree.” Having social spaces for interaction was rated highest (4.93±0.27), while sharing common interests lowest (4.51±0.68). Similarly, the group dynamics item ‘wanting others to succeed’ was rated highest (4.85±0.36), and ‘working out with a group made me excited to come every day’ lowest (4.30±0.72). One participant stated, “I loved the supportive group environment! Everyone started out at a different place, but...I created a bond with the people I was in class with daily.”

CONCLUSIONS: Intentionally fostering SOC was associated with an exceptionally high adherence rate. Future intervention studies may consider strategies to foster SOC among study participants (e.g., group-based training opportunities, social media communication, and creating interactive social spaces) to decrease exercise attrition.

Poster 21-28

Interactions between child sex and maternal perceptions of physical activity space availability: implications for physical activity and screen time among Mexican-heritage (MH) children in Texas border colonias

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AAHB Research Scholars Mentoring Program

Purpose: Child physical activity (PA) has many mental and physical health benefits; however, girls and Latinx children are less physically active. Mexican-heritage (MH) children residing in functionally-rural colonias face unique barriers to finding places to play. This study examined relationships between child sex and mothers’ perceptions of PA places regarding PA and screen time (ST) of MH children residing in colonias along the Texas-Mexico border.

Methods: Promotora-researchers recruited mothers with a child age 8-10 years old (n=335) from colonias in Hidalgo County, Texas. Mothers reported child’s hours of PA and ST per day during the week and weekend separately. Mothers were also asked if there were places for their child to be physically active. Two-way ANCOVAs were run to determine significant differences in mother-reported child PA and ST based on presence of PA places and child sex, controlling for demographics.

Results: Only 46.0% of mothers (n=159) reported places for their child to be physically active; with no significant difference based on sex (boys=50.0%; girls=41.4%). There was a statistically significant two-way interaction between child sex and presence of a PA place for weekday PA (p=.04, partial $\eta^2=.05$) and ST (p=.03, partial $\eta^2=.03$). Having a safe place to play (or perception of this) was differentially beneficial for girls in both cases. There was a significant positive main

effect of PA places for weekend PA ($p=.01$, partial $\eta^2=.06$). There were no significant main or interaction effects associated with weekend ST.

Conclusions: Findings suggest a need to increase perceived and/or actual access to PA places in colonia communities. When developing programming and policy to increase child PA, it is important to consider cultural perceptions of play places and implications of child's sex. Changes to build environments or formal programs geared towards girls, during the week, may address PA and ST disparities.

Poster 21-46

Translating research to practice: Statewide dissemination of an email walking program delivered through cooperative extension

Richards, Elizabeth A; Woodcox, Stephanie

Introduction: Changing health behaviors should focus on strategies that are effective with wide reach that foster maintenance. Effective dissemination of evidenced-based physical activity interventions require organizational commitment to ensure appropriate reach and implementation. One such network that could facilitate this dissemination is the Cooperative Extension System.

Methods: Using the RE-AIM framework, we evaluated the statewide dissemination of an evidenced-based, email-delivered physical activity intervention implemented through Cooperative Extension. The Get WalkIN' program, comprised of 16 email messages sent over 12 weeks, targets social cognitive theory constructs of self-efficacy, goal-setting, self-monitoring, and social support. Program reach, effectiveness, adoption, implementation, and maintenance were assessed with quantitative measures in a pre-post design.

Results: Reach: Between August 2017 to May 2019, 36 Extension Educators recruited 560 participants across 58 counties. Effectiveness: Program effectiveness demonstrated an increase of 77.1 ± 49.9 minutes in weekly walking post-program, which was maintained three months post-program. Adoption: The adoption rate for this program was 42.4%, 36 out of 85 Educators implemented Get WalkIN' at least once during the two-year dissemination period. Implementation: Before county-level implementation, Educators completed a protocol form agreeing to deliver Get WalkIN' in its entirety, including all 16-email messages and the 3-month maintenance email. The lead researcher monitored program start and end dates for each county and contacted Educators to track response rates. Maintenance: The maintenance rate was 30.6%, 11 out of 36 Extension Educators who implemented Get WalkIN' during the dissemination period conducted the program at least twice.

Conclusions: Dissemination findings suggest Get WalkIN' is effective in increasing physical activity and has high program adoption rate among Extension. The flexibility of an email-based program is attractive for Educators to deliver. Capturing data on the implementation process was challenging. Overall, results indicate success in program adoption and maintenance with further efforts needed to improve follow-up data collection from participants.

Poster L21-10**Assessing the social environment relative to preference for and tolerance of exercise intensity within a group-based high-intensity functional training program**

Patterson, Megan S.; Heinrich, Katie M.; Prochnow, T.; Graves-Boswell, T.; Spadine, Mandy N.
AAHB Research Scholars Mentoring Program

Introduction: High-intensity functional training (HIFT), an exercise modality focused on functional movements completed at high intensities, often yields health outcomes superior to repetitive aerobic workouts in less time. Preference for and tolerance of high-intensity exercise are defined as a predisposition to select high-intensity exercise when given the opportunity [preference], and one's ability to continue exercising at high-intensity beyond the point of discomfort [tolerance]. This study explored whether preference and tolerance scores were associated with the social environment within a group of HIFT-exercisers.

Methods: Members of a group-based HIFT gym (n=108; 68.4% response rate; 33.07±9.52 years; 65.0% female; 87.8% white) completed online social network surveys assessing social ties between/among gym members. Linear network autocorrelation modeling (LNAM) determined associations between individual's preference and tolerance scores and that of their social ties. Exponential random graph modeling (ERGM) assessed factors associated with the presence of social ties between members.

Results: LNAMs (preference $R^2=0.18$, $p<.001$; tolerance $R^2=0.23$, $p<.001$) suggest members reported similar preference ($\beta=.07$, $SE=.02$) and tolerance ($\beta=.07$, $SE=.02$) scores to those of their social ties. ERGMs found social connections existed between members who had similar preference ($PE=.03$, $SE=.01$) and tolerance scores ($PE=.06$, $SE=.01$). Members with higher preference scores ($PE=.03$, $SE=.01$) sent more social ties to others, while those with higher tolerance scores ($PE=0.03$, $SE=.01$) received more social ties from others.

Conclusions: This study provides evidence for a relationship between the social environment and preference and tolerance scores within HIFT-exercisers. This deviates from previous work, which defines preference and tolerance as fixed/dispositional characteristics among exercisers. Findings suggests the possibility that preference and tolerance scores might manifest differently in group-settings as compared to individual exercise settings. Longitudinal research could help solidify whether people select others based on their preference and tolerance dispositions, or if the social environment changes preference and tolerance for HIFT-exercisers."

March 23, 2021 3:00PM EST

Vaccines & Prevention

Poster 20-03

Arguments in favor of and against the HPV vaccine school-entry requirement in Puerto Rico: A content analysis of newspaper media

Vazquez-Otero, Coralia; Martinez Tyson, Dina; Beckstead, Jason; Lockhart, Elizabeth; Vamos, Cheryl; Romero-Daza, Nancy; Daley, Ellen

Background: Support from different stakeholders and public involvement are necessary for policy adoption. In 2018, Puerto Rico's (PR) DOH announced that the HPV vaccine would be required for school entrance. This study examined the arguments in favor of and against this requirement. Methods: Content analysis methodology was used to review the two most circulated Puerto Rican newspapers. Articles published between 1/1/2015 and 7/31/2018 that contained the Spanish terms for "HPV" and "human papillomavirus" were included. Data were summarized using descriptive statistics. Articles were reviewed qualitatively using applied thematic analysis. Results: A total of 286 news articles included the key terms. Thirty-four articles mentioned the HPV vaccine school-entry requirement, and most were published in 2017. From those, 20 (58.8%) presented arguments in favor, five (14.7%) presented arguments against, and five (14.7%) presented both arguments. Four (11.8%) articles only mentioned the existence of the requirement (n=2) or the DOH requirement announcement (n=2). Arguments in favor of the requirement included the need for cancer prevention, concerns about current high cervical cancer incidence, and the increasing incidence of oropharyngeal cancer. Arguments against included concerns related to side effects of the HPV vaccine, the sexual nature of HPV transmission, and parental right to decide if their child should be vaccinated. Conclusion: Understanding stakeholders' reasons to support or not support an HPV vaccine school-entry requirement is important for policy processes to be successful. Arguments against the HPV vaccine school-entry requirement were about the HPV vaccine and the virus, as well as parental autonomy. Arguments in favor highlighted the need for cancer prevention and control. Mass education efforts must continue to change the overall HPV vaccine narrative to create behavioral change. Thus, cancer-prevention messages should be crafted to raise awareness, educate, and gain support among parents and other stakeholders towards this type of population-based cancer prevention strategy.

Poster 20-17

Does scientific publication inform public discourse? A case study observing social media engagement around vaccinations

Nelon, Jordan L; Moscarelli, Michael; Stupka, Payton; Sumners, Christina; Uselton, Taylor; Patterson, Megan S

Objective. To explore whether online public discourse about vaccinations changes before and after major scientific publications, and to measure what is related to social engagement around vaccinations on Twitter. Methods. In September 2018, two weeks' worth of Twitter posts (n=2,919) discussing vaccinations were collected, coded, and analyzed before and after two major 2014 scientific publications. Linear regression analyses examined variables related to engagement with

vaccination-related Tweets pre- and post-publication. Results. Of the 2,919 Tweets included, the majority occurred after publication (54.8%) and contained pro-vaccine rhetoric (60.5%) compared to anti-vaccine (13.0%) or a neutral bias (26.5%). Anti-vaccine related Tweets decreased by over 25% after scientific publications, while pro-vaccine Tweets increased by 16.6%. Verification status, number of followers, type of cited source, and bias were assessed as independent variables in the model to predict number of likes and were subdivided by time period. The regression model statistically significantly explained 36.5% of the variance in likes ($F(6)=125.421$, $p<.0001$) before the scientific publication and explained 19% of the variance after ($F(6)=63.37$, $p<.0001$). The same variables were used to predict the number of retweets by time period. The regression model statistically significantly explained 23.3% of the variance in retweets ($F(6)=67.701$, $p<.0001$) before the scientific publication and explained 30.0% of the variance after ($F(6)=115.193$, $p<.0001$). Verification status and number of followers were the strongest predictors of Twitter engagement (i.e., likes and retweets). Discussion. Findings indicate that scientific publications might influence the public health information people share online, and how people engage with online content. In a time when false information is easily spread online, this study suggests the need for continual scientific publication on “hot topics,” and urges researchers to partner with influential individuals on social media to disseminate effective, evidence-based, and user-friendly public health information to the public.

Poster 21-09

Correlates of HPV vaccination intentions among adults ages 27-45 years old in the U.S.

Thompson, Erika L; Garg, Ashvita; Galvin, Annalynn M; Moore, Jonathan D; Kasting, Monica L; Wheldon, Christopher W

Objective: Recently, the HPV vaccine was recommended for 27-45 year olds in the U.S. based on a shared clinical decision between the patient and their provider. This study examined knowledge, attitudes, and beliefs of adults 27-45 years old and the association with both the likelihood of asking a healthcare provider about the HPV vaccine and the likelihood of getting the HPV vaccine.

Methods: We conducted a cross-sectional survey of U.S. adults aged 27-45 years between April-May 2020. Primary outcomes were likelihood of asking their provider about the HPV vaccine and likelihood of getting the HPV vaccine. Demographic variables, knowledge, attitudes, and beliefs (perceived effectiveness, likelihood of benefit) were examined as covariates. Adjusted models were estimated for each outcome variable with a Poisson distribution and log function to improve model fit and convergence.

Results: Of the 706 respondents, 691 had heard of HPV and were included in the analyses. More than half (55.7%) were likely to ask their provider about the HPV vaccine, but less than half (42.9%) were likely to get the HPV vaccine. In adjusted models, likelihood of asking their provider about the HPV vaccine was only significantly associated with perceived likelihood of benefitting from the vaccine (aOR=2.45; 95% CI=1.69-3.57). However, likelihood of receiving the vaccine was associated with positive attitudes (aOR=1.04; 95% CI=1.01-1.07), perceived effectiveness against HPV infection (aOR=4.03; 95% CI=1.01-13.53), and perceived likelihood of benefitting from the vaccine (aOR=4.31; 95% CI=2.64-7.03).

Conclusions: Our findings suggest increasing positive attitudes, perceived effectiveness against infection, and perceived likelihood of benefitting from the vaccination are important factors to address when facilitating a shared clinical decision between patients and providers for HPV

vaccination. Understanding factors associated with likelihood of discussing and receiving the HPV vaccine among people aged 27-45 years is important to successfully implement the guidelines for shared clinical decision-making.

Poster 21-17

Factors associated with cervical cancer screening adherence with mHealth app use among females in the US: Is there an association between these health behaviors?

Sanaullah, Syeda F.; Kenjura, Paige; Trautmann, Daniel; Schichl, Kyle; Wigfall, Lisa T.

Background: Cervical cancer is caused by human papillomavirus (HPV). Mobile health applications (mHealth apps) can increase HPV knowledge and cervical cancer screening, which will decrease incidence and mortality rates. A Pap test is recommended triennially for females ages 21-65 years. Objective: To describe factors associated with and the relationship between adherence and mHealth app use. Methods: This cross-sectional study used 2019 Health Information National Trends Survey (HINTS 5, Cycle 3) data. Chi-square tests (χ^2) examined factors associated with adherence and mhealth app use. Weighted percentages and unweighted frequencies are reported. Logistic regression analyses examined the weighted adjusted odds ratio (AOR) of mHealth app use among females who were adherent, controlling for HPV knowledge, race/ethnicity, marital status, and family type. Results: Our nationally-representative sample included 3,008 females ages 21-65 years. Most females (70.8%; $n=2,130/3,008$) were adherent, of which 67.1% ($n=1,356/2,130$) used mHealth apps ($\chi^2:P<0.001$). HPV knowledge was low (Mean= $2.0\pm 0.03SD$, score range:0-5). Among females with high HPV knowledge (score=5), 72.6% were adherent ($n=374/495$, $\chi^2:P=0.0013$), and 70.3% ($n=519/799$) used mHealth apps ($\chi^2:P<0.001$). Smartphone/tablet owners who did not download or use mHealth apps were less likely to be adherent than those with a basic cell phone or no device (AOR=0.84, 95%CI:0.5-1.4). Similarly, those who downloaded (AOR=1.7, 95%CI:1.0-2.9) or used mHealth apps (AOR=1.7, 95%CI:1.1-2.6) were more likely to be adherent. Conclusion: Behavioral interventions can decrease cervical cancer incidence and death. While mHealth behavioral interventions show promise for reducing the burden of cervical cancer, barriers must be factored into app design and program implementation.

Poster 21-35

Quality over quantity: Perceptions of Human Papillomavirus vaccine information on social media and associations with adult and child vaccination intention

Galvin, Annalynn M.; Garg, Ashvita; Moore, Jonathan; Litt, Dana M.; Thompson, Erika L.

Background: Human Papillomavirus (HPV) vaccination is recommended for 11-12-year-olds, and available for catch-up until age 26. Recent guideline changes recommend the HPV vaccine for adults aged 27-45 with a shared clinical decision with their healthcare provider. Given the rise of social media as a vaccine information source, the frequency of HPV vaccine posts seen and the associations between post perceptions and intention to vaccinate remain unknown. This study assesses HPV vaccination intention of adolescents and 27-45-year-old adults with exposure to HPV vaccine information on social media and perceptions toward HPV vaccine social media information.

Methods: Participants (51% women), aged 27-45 years, were surveyed online (n=691). Outcomes included HPV vaccination intention (intend/do not intend) for themselves and for their adolescents (among participants with unvaccinated adolescents, n=223). Adjusted odds ratios were calculated for social media information perceptions (e.g., credibility, polarity) and both outcomes, adjusting for demographic covariates.

Results: Approximately 55% of participants intended to vaccinate themselves, and 44% with eligible adolescents intended to vaccinate their adolescent. Frequency of seeing HPV vaccination on social media was not significant when adjusting for other social media perception variables. Seeing mostly negative/mixed information about HPV vaccine on social media was associated with lower odds of intention to vaccinate themselves (aOR=0.34, 95%CI 0.15-0.79) and their adolescent (aOR=0.34, 95%CI 0.21-0.53). Believing that social media HPV vaccine information is not credible had lower odds of vaccine intention for adults (aOR=0.17, 95%CI 0.07-0.41) and teens (aOR=0.16, 95%CI 0.10-0.29). For adults, the internet as a source of HPV vaccine information was positively associated with vaccination intention (aOR=1.76, 95%CI 1.10-2.84).

Conclusion: Although frequency of seeing HPV vaccination on social media was not associated with vaccination intention outcomes, findings support developing social media strategies that increase the dissemination of credible information in favor of HPV vaccination, which may promote HPV vaccination uptake.

Poster 21-49

What are the Implementation Factors to Consider for an HPV Self-Sampling Intervention?

Garg, Ashvita; Galvin, Annalynn, M; Griner, Stacey, B; Rosberger, Zeev; Daley, Ellen, M; Thompson, Erika, L

Purpose. With the emergence of primary HPV testing, self-sampling for HPV provides another option for cervical cancer screening, especially among hard-to-reach populations. This study evaluated the association between the implementation factors for HPV self-sampling and women's willingness to have at-home HPV self-sampling.

Methods. We conducted a cross-sectional study in 2018 among U.S. women ages 30-65 years, with no history of hysterectomy (n=816). The outcome variable was willingness to have at-home HPV self-sampling test (yes/no). Primary predictor variables included preferred source for HPV self-sampling information, who would make the decision to have self-sampling, willingness to pay for self-sampling, the preferred method of receiving the self-sampling kit, and preferred method of sending self-sampling kit. Adjusted logistic regression identified variables associated with willingness to have at-home HPV self-sampling.

Results. Half of participants (56%) were willing to have at-home HPV self-sampling instead of a physician collected sample in a clinic. Participants who preferred receiving information from healthcare providers (OR=2.64; 95%CI 1.54, 4.52) or who preferred receiving information from media or other sources (OR=2.30; 95%CI 1.51, 3.48) had higher odds for willingness of HPV self-sampling. Participants who did not want to pay for self-sampling (OR=0.21; 95%CI 0.14, 0.32) or who did not know if they would pay for self-sampling (OR=0.35; 95%CI 0.22, 0.54) had lower odds for willingness for HPV self-sampling. Participants who did not know which method they preferred for receiving a self-sampling kit (OR=0.15, 95%CI 0.07, 0.31) or preferred delivering the sample to the lab themselves had (OR=0.59; 95%CI 0.36, 0.96) had lower odds for willingness to self-sample compared to participants who preferred the mail.

Conclusions. Given the importance of cervical cancer screening and the benefits of HPV self-sampling, especially among hard-to-reach populations, understanding the preferences of women regarding the implementation for HPV self-sampling can help ensure improved uptake for this screening method.

Poster L21-14

The Association between Testicular Self-Examination and Stages of Testicular Cancer Diagnosis

Rovito, Michael, J; Adams, Wesley, B; Craycraft, Mike; Gooljar, Chayna; Maresca, Michael; Guelmes, Janet; Gallelli, Alexa

Purpose: Testicular cancer (TC) is the most prevalent tumor diagnosed in men 15-40 years of age. Survivorship and quality of life dramatically decrease with late-stage diagnosis. Testicular self-examination (TSE) is a diagnostic method used to discover early-stage tumor incidence. This study examines the relationship between practicing TSE and stage of diagnosis for testicular cancer survivors.

Methods: A cross-sectional study design was employed a 40-item survey among TC survivors (n=619). Bivariate analyses consisted of Spearman Rho correlations of all primary variables with stage diagnosis of TC. Multivariate analysis employed an ordered logistic regression to determine stage diagnosis predictors.

Results: 'Regular' TSE practice significantly related with awareness ($r=0.4533$) and knowledge of ($r=0.4866$) TSE, confidence performing TSE ($r=0.4961$), and feeling shape/feel differences of the testicle prior to diagnosis ($r=0.2115$). Factors that had a statistically significant negative association with later-stage diagnosis included awareness ($r=-0.1180$) and knowledge of ($r=-0.1586$) TSE, confidence performing TSE ($r=-0.1138$), and feeling shape/feel differences of the testicle prior to diagnosis ($r=-0.2938$), among others. Regular TSE practice significantly predicted decreased odds of later-stage diagnosis within the sample subset reporting delay (OR = 0.1628; $p < 0.05$); however, there was no significant relationship between regular TSE practice and stage diagnosis within the other model variations

Conclusion: This exploratory analysis aimed to provide baseline evidence of the possible association between the practice of TSE and the stage of TC diagnosis, and therefore making an indirect claim that TSE has the potential to improve quality of life and decrease TC mortality, particularly among AYAs.

March 23, 2021 3:30PM EST

Programs & Evaluation

Poster 20-02

An Innovative Market Research Method for the Promotion of a Behavioral Change Program Targeting University Students

Bleck, Jennifer; Haywood, Christine; French, Kaitlyn; DeBate, Rita

Background: The University of South Florida's Success & Wellness Coaching program guides students in identifying and attaining self-determined health and wellness goals. The program aims to improve adjustment to college, specifically academic, social, and emotional adjustment, as well as increase confidence, motivation, and readiness towards behavior change. As wellness coaching is a relatively new field, without prior knowledge, students often do not understand exactly what the program is and how it differs from other health and wellness services on campus. Thus, a key aspect for the dissemination and growth of this program is marketing. Specifically, marketing the program to students in an approachable way that is both informative and inviting. This study aimed to develop promotional materials for the coaching program using innovative market research techniques. Methods: Students were recruited through campus listservs to complete an online market research survey. The survey quizzed their knowledge of coaching and then provided a formal definition of coaching. Students were subsequently presented with images and slogans and asked to match them to develop advertisements. The survey resulted in student-developed promotional materials as well as directly promoted the program to the participants. Results: In total 2192 students completed the survey. The survey resulted in the development of four advertisements that were used throughout the following semester. During the Fall semester, when staff-developed advertisements were used, there was a total of 165 intake forms completed by students interested in setting up a coaching session. During the following Spring semester, when the student-developed materials were used, the number of completed intakes increased to 337 students. Conclusions: This innovative marketing technique of having students develop their own promotional materials was extremely effective. Moreover, the survey itself served as a marketing tool. Overall this technique increased program utilization and can survey as a guiding method for program marketing.

Poster 20-04

Assessing Associations Between Viewership and Perceptions of Health Themes Among Audience Members of a West African serial TV Drama C'est La Vie (CLV)

Glik, Deborah; Massey, Philip; Kearney, Matthew; Rideau, Alex; Niang, Cheikh

Purpose: We assessed how exposure to a French West Africa produced serial television program, C'est la Vie, with explicit health storylines is associated with beliefs and perceptions among viewers compared to non-viewers. Methods: We used tablet technologies at local markets in 4 geographic regions of Senegal to collect intercept surveys in late 2017. Data collection with graduate students from the University in Dakar comprised research training workshops to pretest and field questionnaires. Students also learned descriptive and bivariate survey analysis

techniques. Results: Among all respondents (n=1494), media utilization source varied by mean age, older respondents using radio (37 years) and television (35 years), and younger respondents using cellphones (29 years) and internet (29 years). CLV exposure also varied as 334 heard of CLV (22.4%) and 136 watched CLV (9.1%). More women than men heard of and watched CLV ($p<0.001$), and audience members were significantly younger (30 years vs. 33 years, $p=0.0086$). Compared to non-viewers, viewers were more likely to have heard of the morning after pill ($p<0.001$), know about ($p=0.001$) and been tested for an STI ($p=0.014$), and been tested for HIV ($p<0.001$). Viewers were more likely to use Facebook and WhatsApp ($p<0.001$). Conclusions: CLV engages younger and more female audiences, a key target for family planning and reproductive health topics. Defining audience characteristics is an important tool to cultivate audiences as well as to identify opportunities to expand audience share and communicate about important health topics. Graduate students from Universite Cheikh Anta Diop learned the basics of survey research as well in this project.

Poster 20-10

Civic Engagement and Youth Development: A Two-year Evaluation of the Next Generation Community Leaders Initiative in New Jersey

Lu, Wenhua; Danley, Stephen; Mitsdarffer, Mary; White, Samantha; Perry, Anetha; Razi, Lili; Williams, Curtis; Kumari, Rashmi; Craig, Peggy Jean; McCaffrey, Matthew

Background: Civic engagement programs empower youths to develop their capacity to become agents of positive change in their communities. With an aim to improve the culture of health in New Jersey, the Next Generation Community Leaders (NGCL) initiative funded 11 underserved communities to develop teams of youth leaders to design and implement community summer health projects. This study provides a two-year evaluation of the NGCL initiative in improving positive youth development. Methods: Adult coaches from 11 NGOs and community health organization across New Jersey recruited youths from their respective communities. At baseline and post-programming, youths were assessed on their civic engagement attitudes and behaviors, health literacy, and community health knowledge. Throughout the year-long programming, youths were further surveyed about their perceived impact of the initiative on improving different aspects of their personal development at three different time points. Data for youths who participated in the 2017 and 2018 NGCL initiative were pooled and analyzed. Matched pair t-test and growth curve modeling were used for data analysis. Results: Altogether 214 youths participated in the NGCL initiative. Most youths (69%) aged 16 to 18 and over 70% were Hispanics or Blacks. At post-programming, significant increase in youths' community health knowledge ($p<0.05$) was observed. Throughout the programming, longitudinal increase in youths' cognitive skills ($p<0.001$), social skills ($p<0.05$), leadership skills ($p<0.001$), and identify exploration ($p<0.05$) were noted. Youths developed and implemented a total of 24 community health projects, including 10 infrastructure improvement projects, 7 summer feeding projects, and 7 health education/promotion projects. Conclusion: Evaluation revealed positive impact of the NGCL initiative in improving youths' personal development. Public health practitioners can use civic engagement as a promising approach to both encouraging youths to become leaders in their communities and having youths impact the health of their communities.

Poster 20-12**Comparing the internal consistency of psychological measurements among people with different education and health literacy levels**

Chen, Xuewei; Schofield, Elizabeth; Orom, Heather; Hay, Jennifer; Kiviniemi, Marc; Waters, Erika

Purpose: The purpose of this study was to examine and compare the internal consistency of several psychological scales related to risk perceptions in groups with adequate versus limited health literacy and higher versus lower education. Methods: Participants (N = 1,005) from a nationally representative GfK panel completed eight self-report psychological scales assessing their beliefs about diabetes and colon cancer through an online survey. We used the Newest Vital Sign to assess participants' health literacy (limited health literacy vs. adequate health literacy). We also classified them into two groups with high school or less vs. greater than high school. We compared Cronbach's alphas for each measure between groups with different health literacy and education levels using the Feldt test. Results: Scale internal consistency was significantly lower among people who completed high school or less than those with above high school education for four scales: perceived severity for diabetes (0.70 vs. 0.75, $p = 0.03$), present orientation (0.60 vs. 0.66, $p = 0.04$), need for cognition (0.73 vs. 0.80, $p < .001$), and social desirability (0.61 vs. 0.70, $p = 0.04$). Scale internal consistency was significantly lower among people with limited health literacy than those who have adequate health literacy for five scales: information avoidance for colon cancer (0.83 vs. 0.88, $p = 0.002$), unpredictability for diabetes (0.82 vs. 0.88, $p < 0.001$), perceived severity for diabetes (0.69 vs. 0.75, $p = 0.04$), need for cognition (0.66 vs. 0.82, $p < 0.001$), and social desirability (0.53 vs. 0.68, $p = 0.001$). Conclusions: Several commonly used psychological instruments elicited questionable internal consistency when applied among populations with limited health literacy and education. To advance health disparity research, we need to revise these instruments, as well as identifying new items or alternative conceptualizations of the constructs to target vulnerable populations (e.g., conducting cognitive interviews).

Poster 21-07**Barriers and opportunities for messaging parents about rear-facing car seats: A mixed-methods evaluation**

England, Kelli J.; Edwards, Ann L.; Gordon, Emily R.; Putnam, Emily L.; Dobyms, Taylor; Springer, Charles E.

Purpose: Motor vehicle crashes are a leading cause of death and injury for children. Child passenger safety recommendations from the American Academy of Pediatrics (AAP) emphasize children should ride rear-facing as long as possible, even up to age 4. Virginia law requires rear-facing only to age 2. Yet, only 14% of 1-3 year-olds nationwide ride in rear-facing seats. The purpose of this qualitative study was to examine barriers and opportunities for messaging parents about rear-facing seats. Methods: Fifty-one parents were recruited for one of two study arms: virtual focus groups (3 groups, $n = 23$) or an online survey ($n = 28$). Qualitative data were analyzed using NVIVO software and common theme analysis, and descriptive survey data were analyzed using SPSS. Results: More than half of the study parents were aware of VA law for rear-facing (57.1%) but not always certain of the age 2 specification. Parents learned about the law via social media (32.1%), newspapers, and at doctors' visits (each 17.9%). Half of parents (46.5%) were unaware of AAP guidelines extending rear facing until age 4 and felt that others were also

unaware (64.3%). Barriers to rear-facing use included discomfort, lack of room for multiple seats in the car, and peer pressure. Parents' suggestions for message content included showing crash simulations and explaining injury potential. Parents thought it was important to know the "why" behind the guidelines. Suggested locations for informational campaigns included places where parents frequent, such as pediatricians' offices, social media groups, and WIC appointments. Conclusions: Even if parents are aware of the law/recommendations, unsafe norms and limited knowledge of the reasons for the recommendations limit compliance. Messaging for rear-facing seats should be persuasive, share the injury prevention rationale for rear-faced positioning, dispel barriers when possible, and message parents in domains they are likely to already frequent.

Poster 21-37

Smoking Behavior in Philadelphia Parks during 2015-2019

McIntire, Russell, K; Shah, Dhruvi; Hampton, Isabella

Background: Physical distancing due to the COVID-19 pandemic has highlighted the importance of access to healthy public spaces such as parks. In 2014, Philadelphia began prohibiting smoking in all public parks, however, this behavior is still common.

Purpose: This study uses data on smoking behavior in Philadelphia parks during 2015-2019 to address the following research questions: 1) What was the percentage of smokers among patrons of four Philadelphia Parks (Washington Square, Independence Square, Rittenhouse Square, and Louis Kahn) during data collection periods per year, 2) how did the percentage of smokers vary by gender and park per year, and 3) among smokers, how did the percentages of the type of tobacco product observed change per year?

Methods: During May and June of each year, trained researchers collected observational data on all patrons entering the parks on Thursdays from 4:15-4:45 PM. Researchers used handheld electronic devices to categorize patrons by smoking status, age, gender, and tobacco product.

Results: Over the course of five years, researchers collected data on 40,142 park patrons. The percentage of smokers among adult park patrons, overall, decreased from 2.9% in 2016 to 1.4% in 2019. During each year, Louis Kahn had the highest adult percentage of smokers, and Rittenhouse or Washington Square had the lowest. Overall, the percentage of male smokers was higher than the percentage of female smokers, but this varied by park. Among smokers, the percentage using cigarettes decreased over time, while the percentage smoking e-cigarettes increased.

Implications: Our study identified decreasing smoking behavior in Philadelphia parks during 2015-2019. The percentage of smokers overall, and by gender, varied between parks, but was consistent over time within parks, suggesting that the parks have distinct tobacco use environments. Increasing use of e-cigarettes in parks reflected the increasing popularity of e-cigarettes in the general population during 2015-2019.

March 23, 2021 3:30PM EST

Sexual Health

Poster 21-02

A longitudinal model of communication networks among HIV service providers in a Ryan White system

Prochnow, Tyler; Lightner, Joseph, S.; Patterson, Megan, S.; Shank, Jamie; McBain, Ryan, K.

Purpose: The Ryan White HIV/AIDS Program (RWHAP), a program dedicated to HIV prevention and treatment, has recently funded initiatives to improve cross-sector collaboration between healthcare and housing—including data integration systems. This presentation models the change in communication and professional networks over time within a RWHAP-funded area during data integration.

Methods: Medical case managers, housing providers, and RWHAP administrators identified up to ten people who were important to them in their professional network regarding housing and healthcare coordination, as well as reported contact frequency and how much they valued each person's input at two timepoints between 2018-2019. Network size, average contact frequency, and average input value were calculated for total network and cross-sector connections and analyzed using repeated measures linear modeling. Separable temporal exponential random graph modeling (STERGM) assessed changes in the whole network.

Results: While participants' (n=35) total and cross-sector network scores did not significantly differ across timepoints, STERGM revealed participants were more likely to form ties with others from a different employment sector (PE=-1.19, SE=0.42) and communication ties were generally more likely when they created a transitive relationship (PE=0.72, SE=0.08). Transitive ties are those occurring between two people who share a third contact. Finally, medical case managers were significantly more likely to form outgoing communication ties in the network (PE=1.79, SE=0.42).

Conclusions: A primary goal of this initiative was to improve service coordination to better serve clients at risk for or living with HIV. Formation of transitive and cross-sector collaborations indicates this RWHAP area has been successful in improving communication between providers, largely due to new connections for medical case managers. A significant shift towards transitivity in this network may also be a sign of strengthening "weak ties". Data integration may be a mechanism to improve prevention and treatment efforts for HIV.

Poster 21-25

Hookup Culture Perceptions and Implications Among College Undergraduate Students

Collins, Erica; Roan, Kaileigh; Sult, Samantha; Chen, Tian; Patterson, Meg

Introduction: Hookups are defined as casual sexual interactions that do not require an emotional connection/commitment. Hookups and casual sex are occurring more often on college campuses, and have been associated with increased risk of sexual assault and sexually transmitted infection (STI) transmission. Social norm theory suggests those who overestimate hookups could be at greater odds of engaging in hookups. The purpose of this study was to investigate factors related to college students overestimating rates of hookups among peers.

Methods: Undergraduate students (n=682; 77.7% female, 68.6% white) reported their gender, race/ethnicity, hookup behaviors, history of emotional, physical, and sexual abuse victimization, and the proportion of their peers they believed engaged in hookups. Based on survey responses, we determined the proportion of respondents who overestimated hookup occurrences. Logistic regression analysis assessed factors related to a student overestimating hookup rates among their peers.

Results: 55% of this sample reported at least one hookup relationship, and 60% overestimated hookup occurrences among their peers. Female students were 56.6% more likely to overestimate hookup occurrences among their peers ($p=.024$). Additionally, students with higher hookup scores were 18% more likely ($p<0.01$), and students who had experienced emotional abuse victimization were 49.6% more likely ($p=.036$) to overestimate rates of hooking up among their peers.

Discussion: This study adds to the body of literature explaining social norms related to hookup culture among college students, supporting an association between higher hookup rates and overestimation. Additionally, results suggest being female and experiencing emotional abuse, two groups already at increased risk for sexual assault on college campuses, tend to overestimate hookups. Due to its connection to sexual assault and STIs, understanding factors associated with overestimation of hookups could be important in reducing negative outcomes among students.

Poster 21-29

Novel sexually transmitted infection screening methods: Characteristics of innovators and early adopters

Griner, Stacey, B; Vamos, Cheryl, A; Puccio, Joseph, A; Beckstead, Jason, W; Perrin, Kay; Daley, Ellen, M.

Purpose: Screening rates for sexually transmitted infections (STIs), including chlamydia and gonorrhea, are low among young adult women. Self-sampling methods may be a novel solution to improve screening rates in this population. Adopter categories are a key construct in the Diffusion of Innovations (DOI) framework, with innovators and early adopters viewed as thought leaders who may influence adoption and reach critical mass among the wider population. This study's purpose was to explore perceptions of innovator and early adopter characteristics in regard to self-sampling methods for STI screening.

Methods: Primary qualitative data was collected via in-depth interviews with sexually active college women, age 18-24 (n=24). Interviews were guided by the Diffusion of Innovations theory and were audio recorded and transcribed. A thematic analysis using a-priori theory-based codes and emergent themes was conducted to identify salient characteristics of innovators and early adopters. Interviews were analyzed thematically by two coders (Kappa=.83).

Results: Characteristics of innovators and early adopters for self-sampling methods included social and personality traits such as openness, extroversion, confidence, and more involvement with college and other social events. Specific groups within the social system, such as sororities, were viewed as innovators for self-sampling method adoption and "transmitters of information" for those within and outside of their social groups. Medical students, biology majors, and those in health-related organizations were viewed as innovators given their interest health and comfort with their bodies.

Conclusion: This study identified salient social groups viewed as innovators and early adopters in the college context. Leveraging these groups and utilizing their thought leadership and influence to disseminate information to the early majority may be beneficial. These results can be used to

inform the development of health communication campaigns and interventions to promote adoption of self-sampling methods, and transform the narrative of risk into wellness.

Poster 21-32

Perceptions and Condom use among Sexually Active college students

Bhochhibhoya, Shristi; Lu, Yu; Zingg, Taylor; Maness, Sarah, B

Purpose: Condom use prevents the transmission of sexually transmitted infections (STIs) including HIV/AIDS. A majority of college students involve in risky sexual behaviors including having multiple partners and unprotected sex, putting them at higher risk of STI transmission. This cross-sectional study was conducted to examine the perceived acceptability, accessibility, affordability, availability, and attitudes towards condom use among college students and their associations with both past and intention of future condom use. Method: A total of 475 sexually active college students from a southwest U.S. university were enrolled in an online survey in which they were asked about their perceptions of condoms on their college campus. A set of Likert statements were used to measure acceptability (8 items, $\alpha = 0.95$), accessibility (3 items, $\alpha = 0.86$), affordability (3 items, $\alpha = 0.71$), availability (3 items, $\alpha = 0.64$), and attitudes (5 items, $\alpha = 0.67$) towards condom use. Results: Approximately 40% of the sample used a condom in their last sexual intercourse. Students perceived condoms to be fairly acceptable, accessible, and available on their campus and priced affordably when they needed to buy them. Ordinal regression analyses suggested that more favorable attitudes towards condom use were associated with higher odds of past condom use (OR: 4.17, 95% CI: 2.84- 6.13) and intention of future use (OR:5.30, 95% CI: 3.35- 8.36), after controlling for age, race, gender, and their current dating status. Interestingly, accessibility, affordability, and availability did not show significant associations, while higher acceptability was associated with lower odds of past condom use (OR:0.78, 95% CI: 0.65-0.94). Conclusions: A smaller percentage of students using a condom even with higher acceptability and availability of condoms pose a serious problem among adolescents. Proper health information programs aimed to improve attitude and acceptability of condom use is essential to increase consistent use of condoms among young adolescents.

Poster 21-40

The Association Between Adverse Childhood Experiences and HIV and STI

Iwundu, Chisom, N; Hernandez, Daphne, C; Ferguson-Colvin, Kristin; Narendorf, Sarah; Santa Maria, Diane

AAHB Research Scholars Mentoring Program

Background: Youth experiencing homelessness (YEH) are at increased risk of being infected and transmitting the human immunodeficiency virus (HIV) and sexually transmitted infections (STI). HIV/STI screening is critical for detecting asymptomatic individuals and confirming suspected cases. Exposure to adverse childhood experiences (ACEs) is linked to sexual risk behaviors which could consequently impact HIV and STI screening. Yet, the research between ACE and HIV/STI screening is limited. Purpose: Our aim was to evaluate the association between ACEs and HIV and STI screening and identify the correlates associated with HIV and STI screening among YEH.

Methods: YEH were recruited (n=200; June 2016–July 2017) across seven U.S. cities from shelters, street outreach, drop-in service centers, and transitional housing. YEH self-reported on ACEs (high vs. low), HIV and STI screening (screened in ≤ 6 months vs never screened), along with demographic characteristics (sex, race/ethnicity, work/school engagement, sexual orientation), years of homelessness, health-seeking behaviors, and mental health (stress, depression). Logistic regression models estimated the association between ACEs, correlates listed above, and HIV and STI screening.

Results: High ACEs levels were associated with increased odds of HIV screening (AOR=1.60, 95% CI=1.07–2.40) and STI screening (AOR=1.51, 95% CI=1.05–2.16). Amongst the explored correlates, greater odds for HIV and STI screening were related to being female, and lower odds for HIV and STI screening were associated with being a sexual minority and getting professional help for a health problem. Lower odds of HIV screening were linked with lack of work/school engagement and greater perceived stress. Higher odds of STI screening were associated with being black, multiracial/other, and ≥ 2 years of homelessness.

Conclusion: Targeting screening towards YEH who are sexual minorities, lack work/school engagement, seek professional help for health problems, and experience greater stress may assist with promoting HIV/STI screening adherence and decrease infection rates.

Poster 21-53

Young, Nulliparous Women’s Perspectives about Key Factors Contributing to their Initiation of Long-Acting Reversible Contraception

Mahony, Helen; Vamos, Cheryl, A; Marhefka, Stephanie, L; Puccio, Joseph; Daley, Ellen, M

Purpose: Women ages 18-25 have the highest rate of unintended pregnancy. Long-acting reversible contraception (LARC; intrauterine device [IUD] and implant) have a central role in reducing unintended pregnancy. The purpose of this study was to explore important aspects of a young woman’s choice to initiate use of either the IUD or the implant.

Methods: In-depth interviews were conducted with 30 nulliparous women ages 18-25 who were currently using either the IUD or the implant. The semi-structured interview guide was developed based on constructs from Social Cognitive Theory. The guide included questions regarding communication with social network members, behavioral skills, and opportunities and barriers.

Results: Most participants identified as white (70%) and non-Hispanic (90%). Participants began considering LARC as an option because they were inconsistent with their previous method of birth control, e.g. forgetting to take the pill. Participants then described seeking knowledge regarding LARC from sources such as the internet and from members in their social network, i.e., health care provider, friends, and/or family members. In seeking knowledge from these sources, participants often discussed receiving inaccurate information. Upon making the decision to use LARC, participants intentionally set a goal of using LARC and used behavioral skills and self-efficacy to overcome barriers and achieve LARC initiation. Most participants experienced barriers to obtaining LARC, e.g. health care providers engaging in non-evidence based practice behaviors and an unusually long delay between the consultation appointment and the insertion appointment.

Conclusions: Targeting these key factors in future interventions can lead to an increase in LARC use among young women. Furthermore, addressing policy and practice barriers to LARC initiation will allow women easier access to these highly effective methods, which will ultimately lead to a decrease in the rate of unintended pregnancy.

Poster L21-11**RISK FOR UNINTENDED PREGNANCY AMONG THOSE WITH A FERTILITY PROBLEM**

Shreffler, Karina M.; Jespersen, Jens; Erato, Gina; Croff, Julie M.

Purpose: Women with unintended pregnancies are at higher risk for prenatal substance exposure, lower folic acid uptake, and adverse birth outcomes. Women with a common fertility problem that makes it more difficult—but not impossible—to become pregnant (polycystic ovarian syndrome; PCOS) may be less likely to use contraception when they are not actively trying to conceive. The purpose of this study is to examine how women with PCOS think about their fertility problem and how that shapes their responses to questions about their fertility intentions as well as reproductive behaviors.

Methods: We used the National Survey of Fertility Barriers and structural equation modeling to examine associations between PCOS, identity as someone with a fertility problem, fertility intentions, and reproductive behaviors.

Results: There were no significant associations between PCOS and fertility intentions, but there were significant associations with reproductive behaviors; as compared to those with no fertility problem, those with PCOS were more likely to be trying to conceive and to be ambivalent about pregnancy.

Conclusions: Women with PCOS are at increased risk for an unexpected pregnancy because they report being more likely to report that they are not trying to get pregnant but also not trying to prevent a pregnancy. These findings have critical implications for maternal and child health because women who think they have a fertility problem and therefore are not using contraception are at risk for a substance-exposed pregnancy, delayed and fewer prenatal care visits, and inadequate nutritional intake.

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Substance Use – Group 2

Poster L21-01

Mediating role of drinking family members and peers in the association between parental attachment and alcohol consumption

Wang, Qian

Purpose: Alcohol use in association with parental attachment has been understudied among young adults in China. The purpose of this study was to assess the mediating role of drinking family members and peers in the association between parental attachment and alcohol consumption. Methods: Students aged 18-25 from several Chinese colleges were invited to complete an online survey. Parental trust, communication, and alienation were assessed by the Inventory of Parental and Peer Attachment. Alcohol consumption was assessed by the Alcohol Use Disorders Identification Test. Only respondents that had consumed alcohol other than a few sips were directed to complete the AUDIT questionnaire. An aggregate variable was created by combining number of drinkers among family members and peers. Demographics (age, gender, father's education, household income, academic performance) and lifestyle factors (physical activity, smoking) were included as covariates. Hayes' PROCESS macro was used to derive mediation effect. Results: Data from 584 respondents (52.7% male; mean age=20.49, SD=1.62) were used in final analysis. Alcohol consumption was negatively correlated with parental trust ($r=-0.168$, $p<0.001$), and positively correlated with parental alienation ($r=0.280$, $p<0.001$) and number of drinking family members and peers ($r=0.527$, $p<0.001$). Number of drinking family members and peers explained 27.55% of the association between parental trust and alcohol consumption, and 19.65% of the association between parental alienation and alcohol consumption. Parental communication was not correlated with alcohol consumption or number of drinking family members and peers. Conclusions: The association between parental trust, parental alienation and alcohol consumption can be partly explained by the number of drinking family members and peers one had. Strategies to enhance parental trust and decrease parental alienation should be fundamental in preventing risky alcohol consumption. When faced with weakened parental attachment, efforts to reduce the influence of drinking family members and peers may be helpful in preventing risky alcohol consumption.

Poster L21-03

Are warnings in Spanish more effective among Spanish speakers? An Experimental Study Comparing English, Spanish, and Dual-Language Warnings on e-cigarette advertisements

Razzouk, Jacob, A; Bilić, Anna; King, Jessica, L

Purpose: Tobacco advertisement warnings, often in English, may not be as effective among Spanish speakers. We randomized Spanish speakers to view warnings in either English, Spanish, or both languages and examined their perceptions.

Methods: We used Prolific and MTurk to survey 841 Spanish speaking adults in the US. Participants were categorized into one of the following groups based on their language

preference: bilingual but prefers English, bilingual but prefers Spanish, or Spanish-only. We randomized participants to one of three warning conditions: English-only, Spanish-only, or English and Spanish. Participants viewed two e-cigarette advertisements varying in brand and design, each containing the FDA-mandated nicotine warning text. We examined associations between conditions and perceived message effectiveness, ad appeal, reactance, affect, recall, attention, and intentions to use e-cigarettes using chi-square and ANOVA where appropriate.

Results: Of the 841 Spanish speaking participants, 54.7% were male, 47.4% preferred English, 37.1% preferred Spanish, and 49.5% had used e-cigarettes within the past 30 days. Respondents exposed to English-only warnings expressed lower advertisement appeal compared to those exposed to bilingual and Spanish-only warnings (39.9 vs. 45.6 vs. 45.1; $p < .001$). Reactance (7.6 vs. 8.3 vs. 7.4; $p = .005$) and affect (11.4 vs. 12.3 vs. 11.2; $p = .032$) scores were lower for those exposed to Spanish-only warnings instead of English warnings. We did not identify differences in recall, attention, intentions to use, or message effectiveness across conditions. Conclusions: Among a Spanish-speaking population, those exposed to bilingual and Spanish-only warning text reported higher advertisement appeal compared to those exposed to standard English warnings. Bilingual warnings elicited higher affect and reactance suggesting those warnings led viewers to experience greater negative emotions. Warning language appears to influence perceptions, though additional analyses will explore findings according to language preference.

Poster L21-04

THE SIGNIFICANT PROSPECTIVE EFFECT OF PARENTAL COMMUNICATION ON ADOLESCENTS' HEALTH RISK BEHAVIORS

Sanchez, Louisiana, M; Oman, Roy, F; Lensch, Taylor; Yang, Yueran

Purpose: The identification of adolescent's health risk behaviors that can be prevented by strong parent-youth communication is critical for developing effective prevention strategies. The purpose of this study was to assess the prospective effect between parent/youth communication and adolescents' health risk behaviors, such as alcohol, tobacco, drug use, physical fighting, weapon carrying, truancy, number of sexual partners, and birth control use. Methods: Five waves of data were collected annually over a 4-year period ($N=1,111$, 52.8% female, mean age=14.3) from a racially/ethnically diverse sample of adolescents. Generalized linear mixed models were used to identify prospective associations between parent/youth communication and adolescent health risk behaviors while controlling for sociodemographic characteristics. Results: Adolescents who had stronger parent/youth communication were prospectively and significantly less likely to engage in alcohol, tobacco, and drug use in the past 30 days (Adjusted Odds Ratio [AOR]: 0.71; Confidence Interval [CI]: 0.58-0.87), participate in truant behaviors in the past 30 days (AOR: 0.70; CI: 0.57-0.86), engage in weapon carrying in the past 30 days (AOR: 0.73; CI: 0.55-0.98), engage in physical fighting in the past 12 months (AOR: 0.79; CI: 0.64-0.97), and more likely to use birth control (AOR: 1.35; CI: 1.08-1.69). However, parent-youth communication was not significantly associated ($p > .05$) with number of sexual partners. Conclusions: The findings demonstrate that youth who have stronger parent/youth communication are less likely to participate in several specific health risk behaviors. Health promotion professionals should consider implementing intervention strategies that focus on establishing clear and consistent communication channels between parents and adolescents that include discussion of health-related activities and that encourage parents to be actively involved in their adolescent's life.

Poster L21-07**Indirect marketing of e-cigarettes through hashtags: Using Comparative Topic Models to determine content differences between @JUULVapor and #juul.**

Valdez, Danny; Unger, Jennifer

AAHB Research Scholars Mentoring Program

Purpose: This case study highlights the difficulty in regulating social-media content for age-restricted products, such as e-cigarettes and vape-pens. **Methods:** We used Twitter's Automated Programming Interface (API) to download two sets of Twitter data: (1) JUUL Lab Inc.'s official Twitter timeline '@JUULVapor' (n=3200 tweets), and (2) a collection of tweets containing one or a combination of the following hashtags: #JUUL, #MyJUUL, #vape, #ecig (n=11,253 tweets). We analyzed the data with comparative Latent Dirichlet Allocation (LDA) topic models (an automated text-consolidation approach) for similarities and differences. **Results:** We identified a clear discrepancy between topic models generated for @JUULVapor and various JUUL-related hashtags. @JUULVapor seemingly uses their handle for customer support (i.e. Topic: Complaints, Words: please, sorry, hear, share, feedback); and also contained references to age product-related age restrictions (i.e. Topic: Underage Use, Words: issue, youth, legally, limited, FDA). By contrast, the topic model for the hashtag dataset uncovered phraseology that may appeal directly to youth, including lifestyles (i.e. Topic: Vapelife, Words: ejuice, happy, glad, ecig, vape, vaping), flavors (i.e. mint, lemon, bubblegum), and references to licit and illicit substances (i.e. beer, cocaine, @loadedliquor). **Conclusions:** JUUL Lab Inc.'s attempt to comply with FDA marketing restrictions on e-cigarettes is notably diminished by how JUUL and other e-cigarettes are contextualized online. Indeed, despite efforts to present a cleaner image on Twitter, JUUL remains indirectly marketed to youth through hashtags which may negate FDA compliance. These findings underscore the observation that regulating social media remains a persistent public health challenge.

Poster L21-08**Vape Shop Compliance to FDA's Elimination of Free Sampling**

Meza, Leah; Galimov, Artur; Huh, Jimi; Baezconde-Garbanati, Lourdes; Sussman, Steve

Introduction: E-cigarettes and other products sold at vape shops remained largely unregulated until 2016, when the U.S. Food and Drug Administration (FDA) introduced the "Deeming Rule". Among several regulations, this rule prohibited provision of free samples of vaping products. This study investigates compliance and adaptation to the elimination of free samples at vape shops and assessed nicotine levels used for sampling.

Methods: We selected and recruited vape shops in heterogeneous neighborhoods in Southern California. Trained teams of data collectors consented and interviewed 121 vape shop employees. Employees responded to a set of questions pertaining to the general protocol of sampling at their shop and provided nicotine levels used for sampling.

Results: Shops are generally compliant, with 92.6% either charging a minimal fee for sampling or eliminating sampling of e-liquid altogether. Only N=9 (7.4%) shops were non-compliant to federal sampling rules. Nearly all shops (97.7%) are also offering low levels of nicotine for sampling (0-3mg/ml). However, the use of various types of minimal fee protocols minimized the impact of the no-free sampling policy on sampling of vaping products at the shops.

Discussion: Results demonstrate that simple adaptations to the loosely defined federal tobacco sampling rule are prevalent. Vape shops can easily bypass the elimination of free sampling of vaping products due to lack of specificity on parameters of compliance, among other issues. Further research is needed, and future implications are discussed.

Poster L21-09

Youth Appeal of 2019 & 2020 Vaping Ads: A Content Analysis

Liu, Jessica; Vázquez-Otero, Coralia; Stevens, Elise, M

Purpose: Youth e-cigarette (EC) use remains high in the U.S. – and advertising is a contributor. In 2018, EC companies became more highly scrutinized for producing advertisements that appealed to youth, and there has been little research examining what content changes may have occurred in their advertisements from 2019 and 2020.

Methods: Using a systematic, quantitative content analysis, three trained coders coded all available EC advertisements from JUUL, Puff Bar, Vuse, and Blu from 2019 and 2020. Based on previous work, they coded for: type of advertisement, flavors, promotions, product cues, descriptors, claims, imagery, youth-oriented themes, and sensational appeals.

Results: Of the 401 EC advertisements, the majority were emails (38.2%) and Instagram posts (30.9%). Over half (53.6%) showed flavors other than tobacco, with Puff Bar leading the brands (70.2%; $p < 0.001$). The most utilized promotion was price reduction (25.4%). The most frequently used product cues were showing the product (51.4%) or packaging (42.4%). The biggest claims were being an alternative to smoking (14.2%) or saving money (13.0%). The most frequently used imagery was fruit (14.0%), employed most by Puff Bar ($p < 0.001$). The only youth-oriented theme used was humor in 4.2% of the advertisements. Positive sensations (e.g., good taste, good smell, or satisfying; 17.1%) were used most, with Puff Bar using it at the highest frequency ($p < 0.001$).

Conclusion: Even with stricter regulations around EC brands, advertisements still include youth appealing content such as flavors, fruit imagery, and positive sensations. Puff Bar led in all these categories possibly because there are no restrictions on disposable product flavors. Advertisements also employed price reductions and showing the product in the advertisements, both of which may cue youth to use the product. Research should continue to monitor the characteristics of EC advertisements and consider the messages that these advertisements convey.

Poster L21-13

Social Support, Cigarette Use, and Alcohol Misuse among Individuals with Subjective Cognitive Decline

McDaniel, Justin, T; Hascup, Kevin, N; Hascup, Erin, R; Albright, David, L; Wallace, Juliane, P

Although there is evidence to suggest that heavy alcohol use and cigarette use may accelerate cognitive decline in individuals experiencing problems with their memory, little research has examined the prevalence and predictors of heavy alcohol consumption and cigarette use among individuals with subjective cognitive decline (SCD). Social support, as described in the stress-support matching hypotheses, may be a salient predictor of health behavior and, therefore, a potential predictor of alcohol/cigarette use among individuals with SCD. In a cross-sectional study, we examine the association between social support and the previously described adverse health behaviors in a sample of individuals with SCD ($n = 850$) from the 2015-2016 Behavioral Risk

Factor Surveillance System (BRFSS). Results showed that 7.65% (95% CI = 5.95–9.64) of the individuals with SCD reported “never” receiving needed social support. Prevalence rates of heavy alcohol consumption and cigarette use among persons with SCD were as follows: heavy alcohol consumption, 4.82% (95% CI = 3.48–6.49); cigarette use, 22.59% (95% CI = 19.82–25.55). Inadequate social support was associated with heavy alcohol consumption (aOR = 3.47, 95% CI = 1.43–8.48, $p = 0.006$) and cigarette use (aOR = 2.53, 95% CI = 1.44 – 4.45, $p = 0.001$) in adjusted analyses. This is the first study to examine the relationship between social support and health behavior among individuals with SCD. Interventions aimed at increasing social support and reducing these adverse health behaviors in persons with SCD are needed.

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Violence and Trauma

Poster 20-15

Development and Validation of an Instrument Measuring Determinants of Bystander Intervention to Prevent Sexual Assault: An application of the Reasoned Action Approach

Hackman, Christine; Rush-Griffin, Sarah; Branscum, Paul; Castle, Arden; Katague, Marina; Greenband, Marissa

Sexual assault is a major public health issue that disproportionately affects college students. Bystander Intervention (BI) is a common approach to reduce sexual assault in college populations, and is considered the gold standard by public health and governmental organizations. However, few surveys are available to measure and evaluate the predispositions students have towards engaging in BI. Purpose: Therefore, the purpose of this study was to develop and validate a theory-based instrument with college students at two US universities. The theoretical model used in this study was the Fishbein and Ajzen's Reasoned Action Approach. Methods: First, an elicitation of beliefs (i.e. behavioral and normative beliefs) was accomplished to inform items on the survey. Next, the survey was developed and sent to an expert panel to establish face and content validity. Afterwards, the instrument was administered to undergraduate college students (n=291), and the following psychometric properties were evaluated: construct validity using confirmatory factor analysis (CFA), and internal consistency reliability using Cronbach's alpha. Results: Data were fit into two separate models to assess fit. In the first model, a 4-factor solution was evaluated (intentions, attitudes, perceived norms, and perceived behavioral control), and results showed that overall fit was modest (Root Mean Square Error of Approximation (RMSEA)=0.121; Tucker Lewis Index (TLI)=0.773, and Comparative Fit Index (CFI)=0.803. However, in the second model, a 7-factor solution was evaluated (intentions, instrumental and experiential attitudes, injunctive and descriptive norms, capacity and autonomy), and results showed that overall fit significantly improved (RMSEA=0.058; TLI=0.948, and CFI=0.958. Discussion: Valid and reliable instruments are greatly needed in this area of public health, especially those tailored to BI. Researchers and practitioners examining BI in college students can use this instrument to measure theory-based determinants of BI to reduce the rate of sexual assault on college campuses.

Poster 20-19

Examining college student perspectives of a theory-based social marketing campaign to promote bystander intervention

Hackman, Christine; Hagadorn, Ellis; Lucas, Faith; Alber, Julia

Background: Bystander intervention (BI) is an important approach for decreasing the rate of sexual assault on college campuses. Properly developed, theory-based social marketing campaigns can shift beliefs regarding sexual assault and contribute to behavior change in the community. Purpose: To examine student feedback regarding a Reasoned Action Approach (RAA)-based social marketing campaign aimed at increasing BI intention and behavior. Methods:

Six audio-recorded focus groups were utilized to provide feedback on social marketing messages that have been developed based on the results from a previous study examining RAA-related barriers and facilitators to BI in college students. Trained researchers facilitated conversations around participant (n=56) opinions and ratings of messages. Transcripts were created and pseudonyms were used to protect participant identity. Results: The data was cleaned for clarity and organized to prepare for qualitative and quantitative analysis. Thematic analysis was used to orient the researchers with the data using NVivo 12 for Windows (QSR International, 2015). The final eight themes included: message understanding; personalization or tailoring; message content; message design and features; message appeal; trust in message; personal preferences; and delivery channels. Within each theme there were two to four sub-themes. For example, message content included the sub-themes color, font, staged/unnatural and layout. Mean rating of each message computed (1=strongly dislike, 10=strongly like). Means ranged from a 4.05 (message #6) to 7.34 (message #1). Discussion: Edits will be made to the messages based on the results, and messages will be tested in a wider population for final feedback. The finalized messages will be studied for effectiveness in attitudinal and behavioral improvements in BI. University campus populations would benefit from theory-based health communication messages, as they could influence beliefs and, as part of a larger intervention, shift behavior in a high-risk population.

Poster 20-26

Predicting Rape Myth Acceptance in Minority College Students

Nelson, Jordan L; Hendricks, Kyle; Naik, Sarina; Ortega, Samantha; Taylor, Kara; Patterson, Megan S

Objective. To examine factors associated with rape myth acceptance (RMA) in a sample of minority college students. **Methods.** Students completed surveys at two separate universities regarding demographics, personal experiences with violence, alcohol use, hookup behaviors, and RMA. Hierarchical linear regression analysis examined variables related to RMA across different racial and ethnic minorities. The Illinois RMA Scale was used and is based on a scale from 0-120, with a higher score indicating rejection of myths. **Results.** Of the 441 participants who identified as non-white, 72.1% of the sample identified as female. The mean age was 19.91 years (SD=2.405) and 23.6% (n=104) of the students identified as African American, 30.4% (n=134) Hispanic/Latinx, 18.4% (n= 81) Asian or Pacific Islander, and 21.1% (n= 182) biracial or multiracial. For African American students, the model explained 23.2% (p=.043) of the variance, with being female and witnessing father abuse increasing RMA score by 10 and 18 points respectively, and witnessing their mother abuse her partner decreased scores by 16. The model for Hispanic students explained 25.5% (p=.002) of the variance, with being female, a senior in college, and ever viewing porn related to higher scores by 12, 9, and 5 points respectively. For Asian and Pacific Islander students, the model was not statistically significant (p=.402). For Bi and Multi-racial students, the model was statistically significant and explained 28.1% (p=.021) of the variance, with being female related to higher RMA scores by 13 points. **Conclusions.** Much of the literature regarding RMA among college students focus on white students or aggregates all non-white students together. Cultural upbringing can create differing conceptualization of social movements and how the world works. Personal beliefs about rape myths, coupled with minorities experiencing sexual assault at higher rates than their white counterparts indicate the need to create culturally tailored educational material and interventions.

Poster 20-32**Trauma and Instability Dimensions of Adversity Contribute to Youth Health Outcomes**

Schuler, Brittany, Gardenhire, Rachel, Moore, Shirley, Borawski E

Purpose. Adversity plays a fundamental role in predicting youth health outcomes. However, our understanding of how adversity should best be conceptualized remains elusive; interventions are presently unable to target specific adversities that confer risk. Adversity is typically defined as a unidimensional construct, but is likely more complex, inclusive of traumatic events (e.g., crime victim, loss of parent) and instabilities (e.g., divorce, food insecurity, moving), which can co-occur and may have differential effects on child health. This study tests whether trauma and instability differentially associate with child health outcomes and behaviors known to increase risk of long-term chronic disease. Method. This prospective study, part of a larger randomized control trial, includes 360 youth-parent dyads recruited from urban Cleveland schools as youth entered 6th grade (T1). Those with a BMI>85th percentile were eligible and followed annually for 3 years (T2-T4). We assessed effects of adversity dimensions at T2 (trauma/instability in past year) on health outcomes (change in BMI, blood pressure, cholesterol [HDL], and blood glucose from T1-T4), and behaviors and other more proximal outcomes (caloric intake, physical activity, sedentary behaviors, sleep, stress) at T2 controlling for child sex and age. Results. Youth were primarily female (57.8%, n=208) and non-Hispanic Black (76.7%, n=276). At T1, mean BMI percentile was 95.69 (SD=3.72). Approximately 31% of youth experienced >1 trauma, and 55% reported some form of instability. Trauma (b=2.70, p=.04) and instability (b=2.95, p = .01) predicted poorer sleep quality. Instability, not trauma, was predictive of higher stress (b=1.10, p=.004), decline in HDL (b=-.45, p=.02), and increase in BMI (b=0.35, p<.001). Stress was predictive of decline in HDL (b=-.07, p=.008). Conclusion. Trauma and instability-related experiences are associated with lower sleep quality among lower-income overweight and obese youth. Instability, but not trauma, is associated with decline in HDL and increase in BMI over a 4-year period.

Poster 21-14**Does being a survivor or witness to sexual assault influence bystander intervention beliefs? An application of the Reasoned Action Approach**

Rush Griffin, Sarah; Hackman, Christine; Branscum, Paul; Hagadorn, Ellie; Lawston, Ashlynn

AAHB Research Scholars Mentoring Program

Background: Bystander Intervention (BI) is a commonly used approach to train college students to prevent sexual assault. Recent research indicates that personal history of sexual assault victimization may be an important factor in subsequently engaging in BI. One model that can be utilized to examine predictors of BI is the Reasoned Action Approach (RAA).

Purpose: To evaluate differences in theory-based determinants of BI participation between students who have a personal history of victimization, or witnessing victimization, and those who have no personal history.

Methods: Undergraduate students (n=291) participated via an online survey at two universities in the US. The survey evaluated RAA constructs (i.e. intentions, and perceived behavioral control (PBC)), and anticipated regret towards participating in BI. Separate regression models (personal history/no personal history) were used to examine predictors of BI intentions.

Results: Students were traditionally aged (18-24 years old), mostly women (60.1%) and freshmen or sophomores (80.4%). Students with a personal history of victimization exhibited significantly higher intentions, attitudes, PBC, and anticipated regret towards engaging in BI compared to those with no history (all p 's<0.05). Both regression models showed the RAA constructs predicted a significant amount of the variance of intentions to engage in BI for both groups [students with a history ($R^2=.529$); students with no history ($R^2=.665$)]. Anticipated regret was a significant predictor for students with a personal history of victimization ($p<.001$), but not significant among students with no history ($p=.128$).

Discussion: Results from this study indicate students having a personal history of victimization influences their beliefs towards engaging in BI. Anticipated regret was only significant for students with a personal history, indicating they may exhibit greater empathy and understand the consequences victimization more so than others. Further research examining the role of personal history of victimization in BI may inform university programming at different levels of intervention.

Poster 21-38

Social Factors Influencing College Students' Confidence to Report Intimate Partner Violence Victimization

Flores, Sara; Spillers, Karley Ann; Almansour, Najla; Patterson, Megan, S

Introduction: Intimate partner violence (IPV) is prevalent on college campuses and often goes unreported. Because many assailants are repeat offenders, reporting IPV can reduce future incidents. Further, while reporting can be difficult, it can make available campus resources that support recovery and academic success for the complainant. The decision to disclose abuse is partially influenced by an individual's confidence in their support sources. This study explored factors related to students' confidence that their personal support network would believe them if they chose to disclose abuse.

Methods: An egocentric network analysis was conducted on a sample of undergraduate students ($n=656$) and their social ties ($n=2757$). Respondents indicated their own gender and history of IPV, as well their social ties' gender and history of IPV. Respondents also indicated whether they felt confident their social ties would believe them if they experienced IPV. Multilevel modeling assessed factors related to students feeling confident their ties would believe them if they experienced IPV.

Results: Female students ($\beta=-0.09$, $p<.01$) felt more confident their ties would believe them. Female social ties ($\beta=0.08$, $p<.01$), siblings ($\beta=0.08$, $p<.01$), and significant others ($\beta=0.14$, $p<.01$) gave students more confidence, while social ties who had experienced IPV ($\beta=-0.03$, $p<.01$) provided the student less confidence. While a student's history of IPV related to less confidence ($\beta=-0.10$ and $p<.01$), if their tie also experienced IPV ($\beta=0.08$, $p=.01$) and if their tie was female ($\beta=0.09$, $p<.01$), they reported more confidence.

Discussion: This study uniquely explored social factors that could explain underreporting IPV on college campuses. Further study is necessary to examine the relationship between these factors and their influence on college students' decision to disclose abuse. A better understanding of abuse disclosure could improve reporting rates and reduce IPV occurrences on college campuses.

March 23, 2021 3:30PM EST

Weight Status & Food Issues

Poster 20-31

The Role of weight status and individual attributes on adolescent social relations: Implications for obesity prevention

Jacobs, Wura; Merianos, Ashley; Smith, Matthew Lee; Nabors, Laura; Fajayan, Alane; Valente, Thomas

Purpose: This study examined associations between weight status and likelihood of nomination (indegree) for five different and essential social network types important for adolescents' development – friendship, romantic, admiration, success, and popularity. Methods: We conducted a secondary analysis of the University of Southern California Social Networks and Networking Pilot Study (SNS) including 1,110 tenth grade students from four high schools. Multiple Poisson regression analyses using GLM were conducted to examine the relationship between BMI categories calculated using CDC BMI-for-age references (underweight, normal weight, overweight, obese) and adolescents' indegree for the five different network types. Regression analyses controlled for sociodemographics, academic grades, sports participation, current alcohol and/or tobacco use, and school attendance. Results: Obese adolescents were significantly less likely to be nominated as romantic interest (OR=0.29, 95%CI=0.19–0.42), admired (OR=0.80, 95%CI=0.65-0.97), or popular (OR=0.71, 95%CI=0.57-0.86) compared to their normal weight peers. Overweight adolescents were also less likely to be nominated as a romantic interest (OR=0.57, 95%CI=0.42–0.78) or popular (OR=0.67, 95%CI=0.53-0.84) compared to those who were normal weight. Underweight adolescents were less likely to be nominated as friends (OR=0.76, 95%CI=0.60–0.98), someone admired (OR=0.61, 95%CI=0.42-0.90), likely to succeed (OR=0.62, 95%CI=0.44-0.87), or popular (OR=0.40, 95%CI=0.25-0.64). Conclusions: Our results suggest BMI status is associated with being selected by peers into different types of adolescent networks. In addition to overweight and obese adolescents, underweight adolescents are a unique group at increased risk for social isolation and/or social stigma due to their weight. There is a need for programs designed to combat the negative stereotypes and social norms surrounding adolescent weight-related stigmatization.

Poster 21-20

FOOD AND FOTOS: USING PHOTOS TO TRANSFORM THE NARRATIVES OF COMMUNITY COLLEGE STUDENTS' EXPERIENCES WITH ACCESSING FOOD

Olmeda, Kiara; Eigege, Chinyere; Daundasekara, Saumali, S; Walton, Quenette, L; Hernandez, Daphne, C

Background: Survey data provides statistics on the percentage of individuals that experience food insecurity, or the inability to access a sufficient amount of food due to a lack of resources. It does not provide us the opportunity to “see” nor “hear” about the barriers that prevent individuals from accessing food nor the triumphs that occur when food is accessible. To transform the narrative

from a statistic to an impactful and tangible description, participatory action methods that involve photo elicitation can be utilized.

Purpose: The study explored the various narratives that low-income community college students face when accessing food.

Methods: Photo elicitation and in-depth one-on-one interviews were conducted among a subsample of low-income community college students that had previously participated in a food assistance intervention (February – April 2020; Houston, TX). Each participant provided six of their own photographs and reported on their experiences with accessing food. One-on-one interviews were recorded, transcribed, and analyzed using the constant comparative approach of grounded theory.

Results: Participants were 26 community college students (Xage=40 [SD=13], 75% female, 68% black, 79% single, 82% unemployed, 50% enrolled in school at time of interviews). Students' images and stories highlighted the various ways their experiences with accessing food intersected with their academic and personal lives. The following themes emerged from the students' photographs and interviews: (a) academic/vocational achievement (17 photographs, 6 participants) (b) economic hardship (34 photographs, 11 participants), and (c) familial support (17 photographs, 7 participants). Collectively, these three themes provided a deeper understanding of the sociocultural context of accessing food, which extended beyond food.

Conclusion: The personal benefits and challenges that the students experienced outside of the school setting were central to their experiences with accessing food. For food assistance programs to be successful, it is imperative to transform the narrative that accessing food is solely about food.

Poster 21-21

Food distribution program positively influence the dietary behavior of community college students: A mixed method study

Daundasekara, Sajeevika, S; Eigege, Chinyere; Olmeda, Kiara; Walton, Quenette, L; Hernandez, Daphne, C

Background: Community college students report less healthful dietary behaviors compared to 4-year college students. While there are few dietary interventions/programs focused on community college students, there is even less of an understanding of the how these programs influence students' dietary behavior.

Purpose: The purpose of this study was to quantitatively assess the dietary intake of community college students who participated in an 8-month food distribution program (FDP). Focus groups explored students' experiences related to diet and behavioral changes associated with FDP participation.

Methods: Among 495 students enrolled in the FDP, a subsample of students (n=34) were selected to participate in focus groups. Dietary intake was assessed using the Block rapid food screener for fruit and vegetable (10-items) and fat (17-items) at baseline and the end of FDP. The changes in dietary components between two timepoints were compared using paired t-test among high (attended ≥ 3 distributions) and low/no attendees (attended 0-2 distributions). Fifteen focus groups were conducted among high (6) and low attendees (9) following the program conclusion. The focus groups were audio-recorded and transcribed verbatim and examined using the constant comparative approach of grounded theory.

Results: Dietary data of participants (Xage= 40 (13); 62% high attendees; 85% female; 65% black; 31% Hispanic) revealed that high attendees had a significant increase in ($p<0.05$) in their vitamin C, magnesium, potassium and dietary fiber intake between the two measurements. Low/no attendees showed a significant increase ($p<0.05$) in their total fat, saturated fat and cholesterol intake. Three main themes emerged from the focus groups related to FDP; 1). It is hard to eat healthy, 2). Increased access to healthier foods, and 3). Healthier lifestyle changes
Conclusions: Community college students frequently experience food hardships. FDP on campus improved their access to fruits and vegetables and induced positive dietary changes.

Poster 21-34

Projecting the Impacts of Sugar-sweetened Beverage Warning Labels and Restaurant Menu Labeling Regulation on Energy Intake, Weight Status, and Healthcare Expenditures in the US: A Microsimulation

An, Ruopeng

Background: Accurate, readily accessible, and easy-to-understand nutrition labeling is a promising policy strategy to address poor diet quality and prevent obesity.

Objective: This study projected the impacts of nationwide implementation of sugar-sweetened beverage (SSB) warning labels and restaurant menu labeling mandate extended to all restaurants.

Design: A stochastic microsimulation model was built to estimate the impacts of SSB warning labels and menu labeling regulation on daily total energy intake, body mass index (BMI), and healthcare expenditures among US adults.

Participants/setting: The model used individual-level data from the National Health and Nutrition Examination Survey, Medical Expenditure Panel Survey, and other validated sources.

Statistical analyses performed: The model was simulated using the bootstrapped samples, and the means and associated 95% confidence intervals (CIs) of the policy effects were estimated.

Results: SSB warning labels and restaurant menu labeling regulation were estimated to reduce daily total energy intake by 18.66 (95% CI=18.37, 18.95) and 18.12 (95% CI=17.88, 18.36) kcal, cumulative BMI by 0.98 (95% CI=0.96, 1.00) and 0.94 (95% CI=0.92, 0.96) kg/m², and cumulative healthcare expenditures by \$55.48 (95% CI=54.32, 56.64) and \$56.31 (95% CI=55.35, 57.27) over five years, respectively. The reduced per capita healthcare expenditures translate into an annual total medical cost saving of \$2.83 billion for SSB warning labels and \$2.87 billion for the menu labeling regulation. The policy impacts differed by sex, age group, and race/ethnicity. Compared to their female, older, and other racial/ethnic counterparts, men, younger adults, and non-Hispanic blacks had a more substantial reduction in daily total energy intake, BMI, and healthcare expenditures in response to the two nutrition labeling policies.

Conclusions: SSB warning labels and an extended restaurant menu labeling mandate can be effective policy leverage to prevent weight gains and reduce medical expenses attributable to adiposity. Both can be cost-saving and scalable at the population level."

Poster 21-47**Using egocentric network analysis to assess social ties that exacerbate body image concerns among college sorority women**

Patterson, Megan S.; Prochnow, Tyler; Graves-Boswell, Taylor; Spadine, Mandy N.

Introduction: Body image issues including body dissatisfaction and disordered exercise disproportionately affect college-aged women. These issues can result in depression, low self-esteem, and the onset/maintenance of shape-changing behaviors such as compulsive exercise and restricting calories. Further, women tend to worry more about their weight and shape and feel guilty about their exercise behaviors not being consistent or rigid enough compared to men. Because body image is often socially influenced, this study assessed individual, dyadic, and network-level factors related to sorority women connecting with people who exacerbate feelings of exercise guilt and body dissatisfaction.

Methods: Sorority women (n=207) completed online surveys measuring physical activity, body dissatisfaction, compulsive exercise, and egocentric networks. Participants nominated 1,105 alters and indicated the gender and exercise behaviors of, their relationship to, how often they communicate with, and how long they have known each alter. Participants also reported the frequency to which alters made them feel good about her looks and guilty about her exercise habits. Two random coefficient multilevel models assessing network relationships with alters who make participants feel: 1) guilty about her exercise habits, and 2) good about her looks were computed using R.

Results: Random coefficient multi-level models revealed alter- ($\beta=-0.18$, $p=.01$) and network-level ($\beta=-.40$, $p<.001$) exercise patterns were related to an ego feeling guilty about her exercise habits; alter gender ($\beta=-.19$, $p=.01$) and communication frequency ($\beta=.07$, $p<.001$) was related to an ego feeling good about her looks; and ego's body dissatisfaction score was related to both an ego feeling guilty ($\beta=.02$, $p<.001$) and feeling good about her looks ($\beta=-.02$, $p<.001$).

Conclusions: By identifying factors associated with potentially harmful social connections, intervention opportunities to promote positive body image were revealed. Findings support and extend literature highlighting the importance of someone's immediate social network on their body image and related behaviors.