A Multilevel Formative Research Approach to Inform the Design of an Innovative Health Communication Intervention Targeting Underserved Women in Georgia to Increase the Uptake of the HPV Vaccine.

Churchill, Victoria, M; Rivers, Brian, M

Introduction: Human papilloma virus (HPV) is an infection that, if left untreated, can lead to cancer of the reproductive system, including the cervix. Cervical cancer is the cause of death for 4,000 women each year and disproportionately affects black women and women living in rural areas. Most cervical cancer-causing HPV infections can be prevented by a complete HPV vaccine dose. However, the uptake of the HPV vaccine has been suboptimal with less than half of Georgian women up-to-date on the recommended schedule. The purpose of this study is to gather formative research that will inform interventions for underserved women in Georgia to increase vaccine acceptability. The aim of this project is to gain understanding about the multilevel barriers and facilitators to HPV vaccination among underserved women in Georgia. Guided by the PRECEDE-PROCEED model, we will conduct interviews with stakeholders who either work with underserved groups, or who identify as a racial/ethnic minority or geographically isolated, to identify predisposing, enabling, and reinforcing factors for HPV-vaccination.

Methods: In this study, we will employ a qualitative research design, within a multilevel framework, to address the aforementioned aims. We will conduct 60 key informant interviews with Black, Latina, and rural-residing women as well as professional stakeholders (such as healthcare providers, non-profit and government employees) to understand the barriers, facilitators, and opportunities to the uptake of the HPV vaccines in Georgia and identify themes for a proposed communication-based intervention.

Ethics: The study has received IRB approval.

Discussion: The ultimate goal of the project is to develop a participant-centric health communication intervention to increase the update of the HPV vaccine. The data from the key informant interviews will inform the novel design and implementation of a health communication intervention targeting underserved and rural women in Georgia.

Registration: The study does not qualify as a clinical trial.
Improving Family Health History Communication Through Practice in Virtual Reality

Bishop, Raegan; Koehly, Laura

Family health history (FHH) is a genomic tool that can be used to assess risk and assist in adjusting risk perceptions, which, in turn, can motivate and potentially improve health behaviors. Unfortunately, many do not have a complete understanding of their risk due to limited FHH knowledge. Therefore, to adjust risk perceptions and motivate healthy behaviors, increasing FHH knowledge is essential. Family communication is pivotal both to gathering and sharing FHH information. Virtual simulation (VS) presents an opportunity to activate family communication by allowing individuals to practice facilitating conversations about FHH and disease risk and researchers to assess health information comprehension and retention. This protocol will use virtual simulation to improve participant health literacy, FHH communication skills and confidence, and assess the communication of FHH information across age and gender. N=200 participants will be recruited in partnership with a community-embedded cancer research center. This study will be a randomized multi-group design. Each group will provide baseline health literacy, health communication self-efficacy, and complete an enumeration task. Upon task completion, participants will interact with a VS FHH intervention in an audio-recorded session or a non-VS FHH intervention. Immediately following the intervention, participants will complete a follow-up task reflecting baseline measurements, an action plan for facilitating FHH communication with their families, and planned behavior changes. After discussing FHH with cancer center navigators, participants will complete another follow-up task reflecting baseline measurements and assessments of FHH and family risk information with members of their social network or family. Analyses will assess changes in health literacy, communication self-efficacy, effectiveness of VS intervention in FHH communication, and if FHH was shared. This study has implications in the health behavior field as it highlights a potential tool that can adjust personal and family risk perceptions, potentially motivating health behavior engagement.
Board 103

Abstract Type: Protocol

Identifying Strategies to Better Support Older Adults Leaving Prison

Nguyen, Annie L; Johnson, Clarence; Seal, David W

Introduction: Older adults are the fastest growing segment among incarcerated populations. Compared to general populations, incarcerated older adults have poorer health. People who leave prison face formidable challenges, but little is known about the health and physical function of older adults leaving prison and how it affects their transition during the reentry period. Older adults may be returning to environments characterized by limited access to healthcare resources and challenging social circumstances, particularly if incarceration was lengthy. Poor health may compound these challenges and impede the ability to engage in health promoting behaviors. The aims are: (1) investigate the health factors associated with reentry among older adults leaving prison (N=80) and (2) elicit narratives about health, social, and community factors that impede or facilitate reentry among older adults with health limitations (N=30).

Methods: In collaboration with a community-based reentry service provider in the state of Wisconsin, we will enroll a cohort of older adults finishing their prison terms. Inclusion criteria are: (1) 50 years+; (2) able to provide informed consent and complete study procedures; and (3) will return to the greater Milwaukee County. Participants will be recruited from prison to complete a baseline assessment and post-release outcomes will be assessed at 1-week and 3-month. Measures include: physical, mental, cognitive health, anticipated reentry challenges, planned behaviors in response to anticipated challenges, sense of belonging, social support. Analyses will examine health status on reentry trajectory. Qualitative interviews will be conducted with a subset of participants who report having health limitations to assess their specific needs during post-release life.

Ethics: This study received preliminary university IRB approval and is pending full review.

Discussion: We will use study findings to develop an intervention to better support older adults when they leave prison and their ability to engage in behaviors that promote health and reentry success.
Abstract Type: Protocol

Approach Bias Retraining for Dual Combustible and Electronic Cigarette Users: Protocol for a Randomized Controlled Trial

Clausen, Bryce, K; Rinck, Mike; Nizio, Pamella; Thai, Jessica; M, Smits; Jasper, A; Gallagher, Matthew, W; Zvolensky, Michael, J; Garey, Lorra

Introduction: Electronic cigarette (ECIG) use has become a popular method for nicotine delivery in recent years. A primary reason for the increase in ECIG use is combustible cigarette (CC) cessation or reduction. However, most CC smokers who initiate ECIG use do not fully transition from CCs to ECIGs, and instead, engage in dual CC and ECIG use. Specialized interventions are needed to promote comprehensive cessation among dual users. Retraining approach bias, or the approach action tendency toward stimuli related to the substance of interest may increase cessation rates for dual users and has seen efficacious treatment in reducing alcohol and CC use. Yet, approach bias retraining (ABR) for both CC and ECIG users has not been explored. The present study will evaluate the initial efficacy of ABR among dual CC and ECIG users.

Methods: Eligible dual CC/ECIG using adults (N = 90) are currently being recruited to complete 4 ABR treatment sessions, ecological momentary assessments (EMAs) for 2-weeks post-intervention, and follow-ups at 4- and 6-week post-intervention. Participants will be assigned to one of three conditions at baseline: (1) CC+ECIG retraining; (2) CC only retraining; and (3) sham retraining. Participants will engage in a self-guided quit attempt to abstain from all nicotine products starting at treatment session 4.

Discussion: The study may lead to a more efficacious treatment for dual users while simultaneously isolating explanatory mechanisms. The findings should guide advances in the theoretical conceptualization of nicotine addiction for dual users and mechanisms involved in maintaining and abstaining from CC and ECIG, as well as provide initial effect size data for a brief ABR intervention for this group.

Ethics: This study has been reviewed and approved by the institutional review board where the study takes place and is registered with ClinicalTrials.gov.
Study Protocol for Freedom to Reach Emotional Empowerment (FREE) mHealth Intervention

Fernandez, Sofia, B.; Garey, Lorra, L.; Businelle, Michael; Cheney, Marshall, K.; Chen, Ann; Jones, Ava, A.; Obasi, Ezemenari; Trepka, MJ

Introduction: Black women with HIV (BWWH) experience anxiety and depression at higher rates than their counterparts from other racial/ethnic groups. Importantly, this is a barrier to HIV care retention and medication adherence. The proposal will develop, tailor, and pilot test an mHealth intervention designed for BWWH that aims to reduce anxiety sensitivity (AS), a transdiagnostic mental health challenge that, when addressed, can effectively improve anxiety, depression, overall quality of life, and, potentially, HIV care outcomes. The goal is to design digital AS reduction content, integrated with culturally tailored HIV management content, to improve mental health and HIV outcomes, simultaneously, through a pilot trial of the Freedom to Reach Emotional Empowerment (FREE) application.

Methods: BWWH who report clinically significant anxiety and/or depression will be recruited from medical case management sites across Miami, FL and Houston, TX. First, BWWH (N=20) will be recruited to provide feedback on developed psychoeducational scripts that will become digital content for FREE. Next, content will be programmed as an mHealth app using InsightTM technologies. Culturally tailored AS treatment videos will include just-in-time messages for negative mood, HIV care management, and psychoeducational skill practice assignments in response to ecological momentary assessments (EMA) (e.g., when having missed medication, when experiencing anxiety and/or depression symptoms). Last, BWWH (N=70) will be recruited and randomly assigned to 8-weeks of FREE+EMA or EMA only for a pilot trial. Analysis will focus on changes from baseline to 8-week follow-up in primary (AS and HIV-specific quality of life) and secondary (anxiety, depression, and medication adherence) outcomes.

Discussion: This proposal seeks to improve mental health and HIV-related outcomes among BWWH, simultaneously, using a personalized mHealth application, which has the potential to reduce health disparities and move us closer towards culturally-tailored, patient-centered care.

Ethics: This study received IRB approval and will be registered as a Clinical Trial.
Board 106

Abstract Type: Protocol

Feasibility and Acceptability of a Creative Narrative Behavioral Health Intervention for SGM Emerging Adults of Color

Tran, Jennifer, T.; Bauermeister, José, A.

Introduction: Sexual and gender minority (SGM) communities of color are disproportionately affected by depression, anxiety, and suicide risk compared to heterosexual and non-Hispanic White SGM peers due to multilevel experiences of intersectional stigma. Critical Narrative Interventions (CNI) are an evidence-based intervention strategy that elicits self-reflection and encourages behavior change. CNIs have been shown to improve self-efficacy and increase coping skills for anxiety and stress. However, CNIs have not been examined as a strategy to address the mental health of SGM communities of color. Therefore, the pilot study aims to assess the feasibility and acceptability of CNIs to address SGM of color’s mental health.

Methods: We are recruiting 30 SGM individuals of color who report a score of moderate to severe depression with no suicidal ideation in the past month. Once consented, participants will be randomized to one of two CNI strategies: a) a photo-novella condition (i.e., stories through photographs) or b) a digital storytelling condition (i.e., stories through videos). Participants will have 30 days to create a product that illustrates how they have felt seen or unseen as an SGM person of color. Participants will complete an in-depth interview and a brief web survey before and after creating their narrative. Primary outcomes will examine the feasibility, acceptability, and appropriateness of the assigned CNI. Secondary outcomes include stigma, depression symptoms, anxiety symptoms, empowerment, self-efficacy, and social support.

Discussion: Results from this pilot study will inform on the initial feasibility of a novel method for addressing mental health disparities affecting SGM individuals of color. Findings will have implications for the development and scalability of narratives as stand-alone independent strategies or as components that can be incorporated into mHealth interventions.

Ethics & Registration: This study received university IRB approval (#853689) and has been registered with Clinicaltrials.gov (NCT05899218).
Implementation and Dissemination of Project SWITCH (Supporting Workplace Investment in Tobacco Control and Health): A Quality Improvement Study Protocol to Address Tobacco Use, Relapse Prevention, and Secondhand Smoke Exposure at Texas Lung Cancer Screening Centers

Britton, M.; Dey, A.; Martinez Leal, I; Rogova, A.; Chen, T.A.; Lowenstein, L.M.; Sanchez, H.; Reitzel, L.R.

Introduction: Cigarette smoking and secondhand smoke exposure account for ~90% of lung cancer deaths. Accordingly, lung cancer screening (LCS) guidelines are based on smoking history. Despite being an ideal healthcare touchpoint to intervene on current tobacco use and support relapse prevention, Texas LCS centers are unequipped to provide these services. Project SWITCH is an evidence-based tobacco-free workplace (TFW) intervention culminating in policy and clinical workflow changes to effectively reduce secondhand smoke exposure and intervene on tobacco use. Project aims are to implement and disseminate an adapted workplace intervention in Texas LCS centers.

Methods: The multi-component, social cognitive theory-based TFW intervention includes policy and workflow changes, education, specialized training, and resource provision. Implementation in >/=9 LCS centers will use a hybrid (implementation-effectiveness) type II design. The intervention will be adapted for LCS centers, with changes to Exploration, Preparation, Implementation, Sustainment Framework-informed implementation strategies (to facilitate intervention component delivery) documented using the Framework for Reporting Adaptations and Modifications to Evidence-based Implementation Strategies. A mixed methods approach will be employed to evaluate implementation using Proctor’s pragmatic outcomes of program penetration, fidelity, and sustainment; effectiveness will be assessed with clinical outcome data. Guided by Brownson’s approaches for disseminating public health science and the utilization-focused surveillance framework, statewide dissemination will include active and passive strategies, including the creation of a setting-specific webpage, step-by-step implementation guide, and the provision of technical assistance. Program records will be used to evaluate dissemination.

Ethics: Work began on 3/1/2023 following institutional Quality Improvement Assessment Board approval.

Discussion: Project SWITCH will enhance capacity for tobacco control and intervention in Texas LCS centers. Innovation includes addressing a timely need (recent changes to LCS recommendations nearly doubled the eligible adults) and incorporation of relapse prevention. The findings will address the research-to-practice gap in tobacco science.
Board 108

Abstract Type: Protocol

Study Design and Protocol for Nourishing Beginnings, an Integrated Service Delivery Model Addressing Food Insecurity and Social Needs of Low-Income Pregnant Individuals

Borawski, Elaine A; Goodwin, Meredith A; Glenn, Alissa C; Mundorf, Christopher; Fernandez, Laura I; Larberg, Ndidi; Gunzler, Douglas D; Lever, Jonathan S

Introduction: Nourishing Beginnings (NB) is an integrated referral and service delivery program that provides low-income pregnant individuals with increased nutritional food access throughout pregnancy up to three months postpartum, through community health workers (CHW), who simultaneously address and provide support for social service needs of the client.

Methods: The study population consists of 160 pregnant individuals (18 or older, <22 weeks pregnant) who are referred to a countywide Pathways Community HUB (HUB), a community-based care coordination network that connects and reimburses CHWs who link at-risk individuals to medical, social, economic, and behavioral health resources. Consented NB participants are randomized to one of two interventions each paired with traditional CHW services, nutrition educational materials, and provision of basic essential cooking tools. Interventions consist of either bi-weekly tailored food boxes (with recipes) delivered from the local food bank or bi-weekly financial assistance with healthy food access navigation. Primary study outcomes include maternal and fetal health (i.e., gestational age, birthweight, pregnancy/birth complications, hospitalization). Intervention targets and proximal outcomes include prenatal care, food security, dietary quality, cooking frequency, reported race discrimination and psychosocial factors (e.g., depression, stress, healthy eating self-efficacy, and social support). Also include process and cost measures. Data collection occurs at baseline, eight weeks after intervention begins, near delivery, and three months postpartum. Intervention groups are compared to each other as well as against HUB historical controls and a concurrent matched sample from local Medicaid data.

Ethics: This study has received university IRB approval.

Discussion: Low income, pregnant individuals report numerous barriers to obtaining and consuming healthy foods during pregnancy including limited food budget, lack of access to grocery stores, lack of transportation, stress, and competing demands. This study examines a strategy that directly connects pregnant individuals to resources without placing additional burden on them.

Registration: This study is registered with ClinicalTrials.gov.
How should we communicate about HPV Self-Collection? Lessons learned from Black women with high-risk factors for cervical cancer mortality.

Mkuu, Rahma; Chakrabarti , Choeeta; Hall, Jaclyn; Amuta, Ann; Harvey, Idethia

Purpose: Risk factors associated with higher cervical cancer mortality include living in high social vulnerability areas (poverty), Black race, and having type 2 diabetes (T2D). Women with co-occurring risk factors likely experience an exacerbated cervical cancer burden. Human papillomavirus (HPV) causes 99.7% of cervical cancer. HPV tests are the most sensitive method to detect cervical cancer early. However, Black women living in poverty and with T2D are less likely to receive HPV testing. HPV self-collection tests are acceptable and improve screening rates among under-screened women. We examined communication preferences for HPV self-collection among Black women with high cervical cancer mortality risk.

Methods: This project is part of a larger precision public health study aimed at improving cervical cancer outcomes for Black women living with T2D and in high-poverty geographic areas. Qualitative semi-structured interviews were conducted with 29 black women with T2D living in high social vulnerability zip codes served by a large academic medical center. We used thematic coding to analyze data relating to preferences for HPV self-collection communication.

Results: Three main themes emerged. (1) Preference for HPV self-collection tests to be recommended by providers; (2) Concern about correctly collecting samples for testing, stressing the need to improve instructions; (3) Minimal social network effect on HPV self-collection decision making.

Conclusions: HPV self-collection tests have the potential to address barriers to screening for Black women with high-risk factors for cervical cancer mortality. Provider recommendations for HPV self-collection could improve screening rates for women who are not up-to-date or loss to follow-up for screening. Our findings call for future studies on increasing self-efficacy and skills to collect through designing HPV self-collection instructions focused on addressing accuracy concerns. Social networks did influence our sample’s decision-making for HPV self-collection, aligning with other studies showing that not all health behaviors are influenced by social networks.
Board 110

Abstract Type: Research Based

Initiating Cannabis Use by Vaping Mediated the Associations between E-cigarette Use and Later Cannabis Use among U.S. Young Adults

Wong, Su-Wei, PhD, CHES; Yang, Meng, MPH, MS; Ou, Tzung-Shiang, PhD, RN; Lin, Hsien-Chang, PhD

Purpose: Studies have found that e-cigarette use was associated with cannabis use through both traditional methods (e.g., smoking) and vaping. However, the pathways that link cannabis-naïve e-cigarette use and different methods for later cannabis use remain uninvestigated. This study examined the role of initiating cannabis use by vaping in these pathways among a nationally representative young adult sample.

Method: Young adults aged 18-25 who were cannabis-naïve at baseline (Wave 4, n=5,731) were extracted from the restrict-use Population Assessment of Tobacco and Health (PATH) study Waves 4-6 (2016-2021). Two weighted generalized structural equation models were conducted to examine the associations between baseline cannabis-naïve past-month e-cigarette use and past-year traditional cannabis use at Wave 6 (Model 1) and also past-year cannabis vaping at Wave 6 (Model 2), both mediated by past-year cannabis vaping “initiation” at Wave 5.

Results: Baseline (Wave 4) cannabis-naïve e-cigarette use was associated with a higher likelihood of initiating cannabis vaping at Wave 5 (OR=4.33, p<.001). Participants who were baseline cannabis-naïve e-cigarette users subsequently had a lower likelihood of past-year traditional cannabis use at Wave 6 (Model 1: OR=0.72, p<.05) but higher odds of past-year cannabis vaping at Wave 6 (Model 2: OR=1.46, p<.01). Initiating cannabis use by vaping mediated both associations.

Conclusions: Findings revealed a potential new trend that young adult e-cigarette users who initiated cannabis use by vaping were less likely to subsequently use traditional cannabis products but more likely to continue vaping cannabis after their initial use. Since e-cigarette devices serve as readily available channels for vaping cannabis among cannabis-naïve e-cigarette users, initiating cannabis use by vaping could influence their choice of product for future cannabis use. As regulations on e-cigarette products have become stricter while regulations on recreational cannabis have relaxed, policymakers should reconsider the role of e-cigarettes as an alternative method for using cannabis.
Abstract Type: Research Based

Mediation Effect of Intergenerational Violence and Partner’s Drinking Behavior on Physical Violence Among Cambodian Women

Myint, Wah, W; Tomar, Aditi; Clark, Heather, R; McKyer, E.Lisako, J; Smith, Matthew, L

Background: Cambodia is one of many countries to ratify the elimination of all forms of violence against women. Yet many women there suffer from intimate partner violence (IPV). Female IPV survivors face tremendous lifelong consequences; Efforts are needed to identify past and current drivers of abuse.

Purpose: Explore mediation effects of intergenerational violence and partner’s alcohol-drinking behavior on physical violence experienced by Cambodian women.

Study Significance: The lack of behavioral-focused IPV research in Cambodia poses a public health problem. Method: Using the 2021-2022 Demographic and Health Survey of Cambodia (N=6,204 women), a series of multivariable logistic regression models were performed to assess associations between sociodemographic (age, education, household wealth, residential rurality) and mediator variables (witness to father’s abusive behavior, partner’s drinking behavior) on IPV by a current partner.

Results: Women with higher education levels were less likely than women without formal education to experience physical violence (adjusted OR=0.173; 95% CI=0.056-0.536). Women in the wealthiest household group were less likely to experience physical violence (aOR=0.279; 95% CI=0.149-0.523) than women in the poorest. In mediation models, women who witnessed their fathers’ abusive behaviors were 2.5 times more likely to experience IPV by a current partner (aOR=2.488; 95% CI=1.812-3.416). Women whose current partner drank alcohol were almost 3 times more likely to experience IPV (aOR= 2.875; 95% CI= 1.923-4.297). Conclusion: Exposure to intergenerational violence and partner’s alcohol-drinking behaviors are associated with physical violence against women in Cambodia. Efforts are needed to explore the situation of abuse detection and reporting in Cambodia. Future health behaviors research focuses on the impact of intergenerational abuses on families, behavioral approaches to alcohol cessation among perpetrators, and violence prevention.
Association Between Social Norms and Sugary Drink Consumption Among Mexican-Americans in the US: Findings from International Food Policy Study, 2021

Altman, Rochelle; Davis, Rachel; Thrasher, James; Fang, Dai; Gutierrez, Indira; Jáuregui, Alejandra; Quevedo Torres, Kathia Larissa; Arellano Gomez, Laura; Drolet-Labelle, Virginie; Vanderlee, Lana; Hammond, David

Title: Association between social norms and sugary drink consumption among Mexican-Americans in the US: Findings from International Food Policy Study, 2021.

Objective: Excessive consumption of sugary drinks is associated with negative health effects. Whether social norms, family and friends consumption habits, and the significance of sugary drinks during social gatherings influences sugary drink consumption among Mexican Americans remains less studied.

Methods: Adults aged 18-100 in the USA who identified as Mexican American completed online surveys as part of the International Food Policy Study (IFPS) in 2021 (n=3361). Using a validated Beverage Frequency Questionnaire, participants reported their past 7-day sugary drink consumption. Crude and adjusted logistic models were used to analyze correlates of any sugary drink consumption, while linear models assessed the correlates of the estimated volume of sugary drink consumption among participants who reported any consumption.

Findings: Older people (60+ years) were less likely to consume sugary drinks when compared to younger people (18-29 years). Those who perceived sugary drinks as 'moderately' to 'very' important at social gatherings had an increased likelihood of consumption, with odds of 2.72 to 4.55 higher (95% CI: 1.82, 4.08 and 95% CI: 1.79, 11.60, respectively) compared to those deeming them ‘not at all important’. Perceptions of family or friends consumption was associated with higher personal consumption (OR for family: 2.11, 95% CI: 1.43, 3.12; friends: 1.75, 95% CI: 1.17, 2.63) compared to those who never observed such consumption. Individuals neutral about significant others avoiding sugary drinks had higher consumption likelihood (OR: 1.79, 95% CI: 1.09, 2.94). Participants who perceived sugary drinks as slightly to very important at social gatherings reported increased consumption, ranging from 0.223 units (95% CI: [0.124, 0.322], p < 0.00001) to 0.435 units (95% CI: [0.271, 0.599], p < 0.00001).

Conclusion: The study underscores the role of social and cultural perceptions in influencing sugary drink consumption among Mexican Americans.
Abstract Type: Research Based

The Importance of Environmental Concern and Environmental Identity on Personal Behavior Versus Support for Public Policies

Largo-Wight, Erin; Truelove, Heather, B

Background: Over the last two decades, single-use plastic consumption has exploded resulting in devastating consequences on the natural environment and human health. The purpose of this study was to explore the importance of environmental concern and environmental identity on personal behavior and support for public policies.

Method: We examined data from two studies. In Study 1, 169 Mturk participants completed surveys focused on single-use plastic concern, behavior, and policy support, as well as environmental identity. In Study 2, as part of a larger funded study on health, behavior, and single-use plastic, 557 freshman students from two coastal college campuses in the Southeast U.S. completed surveys assessing the same variables as in Study 1. A series of regression analyses with plastic pollution concern and environmental self-identity predicting A) support for plastic reduction policies and B) plastic-use behaviors in both Study 1 and Study 2 were conducted.

Results: Across both studies, plastic policy support was more strongly related to plastic pollution concern (Study 1: $\beta = .398, p < .001$; Study 2: $\beta = .441, p < .001$) than environmental identity (Study 1: $\beta = .285, p < .001$; Study 2: $\beta = .087, p = .047$). On the other hand, plastic use behavior was more strongly associated with environmental identity (Study 1: $\beta = .539, p < .001$; Study 2: $\beta = .182, p < .001$) than plastic pollution concern (Study 1: $\beta = .129, p = .079$; Study 2: $\beta = .091, p = .064$).

Discussion: Results show that concern about plastic pollution seems to be a stronger predictor of support for environmental health public policy related to single-use plastic and environmental identity appears to be a more important predictor for single-use plastic behaviors. These findings should be used to guide future research and tailor environmental health efforts.
Comparing Generation X and Millennial Parent Attitudes Toward HPV Vaccination in the U.S.: A MIMIC Model Approach

Lo, Wen-Juo; Murray, Regan M; Chiang, Shawn; Manganello, Jennifer A; Klassen, Ann C; Leader, Amy E; Hill, Larry; Guan, Mengfei; Massey, Philip M

Background: Social media is an important tool to promote human papillomavirus (HPV) vaccination, especially among parents. However, few studies have assessed informational uptake and behavioral intentions among the different generations of parents who engage with online health information. The purpose of this study was to compare intentions toward HPV vaccination between Generation X and Millennial parents who participated in a social media health education program.

Methods: A randomized experiment with a single factor between-subjects design was conducted. Qualtrics Panels was used to recruit parents (n=550) from March to July 2022. Parents were randomly assigned to receive either narrative or non-narrative education program and then completed an online survey that assessed HPV vaccination intention. Parents were characterized as belonging to Generation X (ages 43 to 58) or Millennials (ages 27 to 42). The multiple-indicators multiple-causes (MIMIC) modeling approach was used to evaluate whether intentions varied based on generations and educational programs (controlling for education, income, religiosity, and political affiliation).

Results: Millennials represented 54.4% of participants (Mage = 36.01, SD = 3.45) while Generation X had mean age of 45.89 (SD = 3.82). The results indicated a well-fitting model (CFI=.95, TLI=.93, SRMR=.07, RMSEA=.07). Overall, Millennial and Generation X parents had similar intentions to vaccinate. However, the non-narrative group, higher-income and more religious participants, had significantly higher intention scores than the narrative group, lower-income and less religious participants. Those with a Democratic affiliation had significantly higher intention scores than Republicans.

Conclusions: Our findings suggest that parents from the different generations had similar intention to vaccinate and prefer non-narrative HPV vaccine information. This work is important for the field of health communication as we continue to evolve and adapt our strategies to meet audiences where they are, especially as social media platforms evolve, and new technology and forms of communication continue to emerge.
Considerations for Teaching and Evaluating Childhood Bicycle Skill Acquisition and Injury Prevention Behavior

Howard, Kerry, A; Griffin, Sarah, F; Stuenkel, Mackenzie; Sease, Kerry, K

Background: Elementary school-aged children show the highest incidence of bicycle-related injuries and deaths of any age group, making them a key population for intervention to promote injury prevention behavior. Bicycle education interventions teach injury prevention skills among children in their formative years for developing lifelong bicycle safety behaviors. However, program success measures, such as knowledge of skills, may not translate to behavior. Self-efficacy, a key construct of Social Cognitive Theory (SCT), consistently predicts behaviors. The present study used SCT to examine individual and external factors as predictors of pre-program to post-program change from a bicycle skill education intervention. Outcomes were knowledge and self-efficacy for injury prevention skills to investigate differences in a traditional outcome and novel outcome associated with behavior.

Methods: A school-based bicycle skill education program was implemented at 13 sites among 2,260 students. Students and instructors completed survey items that spoke to student-level characteristics and context factors of the program. Multilevel models examined individual-level predictors through SCT constructs of behavioral capability and participant expectations, with demographics; and context predictors of observational learning and reinforcement.

Results: Results showed more consistent change in self-efficacy than knowledge outcomes. Students with behavioral capability through riding a bicycle as part of the program showed a greater increase in self-efficacy, as did those with positive expectations. Contexts with a greater percentage of students who could already ride were associated with less increase in both outcomes. The finding that individual-level characteristics and external context features were predictive suggests that, while there may be consistent features to incorporate into programs, individualized approaches may also be necessary.

Conclusions: Injuries among elementary school-aged children are preventable with learning of injury prevention skills. Through the novel approach of using self-efficacy as an outcome, the study highlighted features of an intervention program that may translate these skills into behaviors.
Board 116

Abstract Type: Research Based

Speech Disturbances in Relation to Mental Illness, Suicidal Ideation, and Sleep Disorders

Merrill, Ray, M; Barker, Christian

Purpose: Research has shown that speech disturbances are comorbid with anxiety, but little is known about its relationship with other mental illnesses, suicidal ideation, and sleep disorders. This study will assess associations between speech disturbances and common mental illnesses, suicidal ideation, and sleep disorders.

Methods: Analyses are based on employees receiving health insurance from the Deseret Mutual Benefit Administrator (DMBA) during 2017-2021. Rates of mental illnesses and sleep disorders will be compared between those with a speech disturbance and those without, based on medical claims data. There are approximately 21,362 employees each year, of which 0.12% experience voice disturbances.

Results: Among those with a speech disturbance, 45% had mental illness (7% stress, 22% anxiety, 20% depression, 2% ADHD, 2% bipolar disorder, 0% OCD, and 1% schizophrenia), 2% suicidal ideation, and 33% a sleep disorder (10% insomnia, 4% hypersomnia, 25% sleep apnea, and 5% other). Rates of mental illness, suicidal ideation, and sleep disorders for those with a speech disturbance versus those without, after adjusting for age, sex, marital status, dependent children, salary, and year, are 2.4 (95% CI 2.0-2.9), 7.5 (95% CI 1.9-29.0), and 2.2 (95% CI 1.7-2.8), respectively. Corresponding rate ratios with further adjustment for gastroesophageal reflux, asthma, allergies, sinusitis, and hypertension are 1.5 (95% CI 1.3-1.9), 5.5 (95% CI 0.9-34.1), and 1.5 (95% CI 1.2-1.9). The association between speech disturbances and mental illnesses is most consistently significant with stress, anxiety, and depression because of small numbers with the other mental illnesses (data not shown). Insomnia, hypersomnia, sleep apnea, and other sleep problems are each consistently significantly associated with speech disturbances (data not shown).

Conclusions: Those with speech disturbances are at high risk for mental illnesses, suicidal ideation, and sleep disorders.
Board 117

Abstract Type: Research Based

Perceived Social Support and Health Behaviors Among Mexican Americans in Texas: The Role of Social Ties

Bishop, Raegan; Wang, Helen; Lin, Jielu; Koehly, Laura

It is well established that the prevalence rates of many preventable chronic conditions, such as heart disease and diabetes, are much higher in Hispanic populations compared to non-Hispanic Whites. Healthy lifestyle behaviors can help prevent the onset and mitigate the complications of preventable chronic diseases, yet behavioral changes are difficult and complex, especially among those of Hispanic heritage. Building upon a large body of research showing that social support is strongly correlated with health behavior and outcomes, in this study, we test how social support exchange in the family network system may relate to health behavior engagement. Using family network data collected from 497 Mexican heritage individuals from 162 families residing in Harris County, Texas, we investigate how giving and receiving social support in the family impacts individuals’ engagement in dietary, physical activity, dietary prevention screenings (e.g., breast cancer), and drinking behaviors. Ties of perceived giving and receiving social support were calculated based on participants’ enumeration of their family network. They were used to map ego-centered perceived asymmetrical giving, asymmetrical receiving, and reciprocal giving and receiving social support. We found that most participants reported asymmetric giving, whereas asymmetric receiving or reciprocal social support ties were sparse. Regression results indicated that asymmetrical receiving predicted alcohol consumption ($\beta=.03$, $p=.02$), ($R^2=.02$, $F(4, 457) = 3.02$, $p = 0.02$). It was also found that multiple predictors explained mammogram prevention checkups ($R^2=.02$, $F(4, 258) = 5.08$, $p <.01$), including asymmetrical giving ($\beta=.01$, $p<.01$), and reciprocal relationships ($\beta=.01$, $p=.02$. Results reiterate the importance of perceived social support reciprocity in health behavior engagement and suggest that asymmetrical social support can also be influential in health behavior engagement among MA’s. More research is needed to understand better the role of perceived asymmetrical social support in health behavior engagement, particularly among the diverse Hispanic population in the US.
Abstract Type: Research Based

**Improving the Health of South Dakotans with Pharmacy Based Education, Counseling, and Clinical Management of Diabetes and CVD**

Robbins, Chris; Middendorf, Alex; Van Gilder, Deidra; Hanson, Stephanie; Miller, Erin

**Background:** Pharmacist-provided Medication Therapy Management (MTM) services help patients by not only optimizing medication regimens for their health conditions and providing education on appropriate use, but also by enabling patients to address issues between clinic visits, such as monitoring adverse effects or changed therapy. The objective of this project was to examine satisfaction, adherence, and clinical outcomes for patients with diabetes or cardiovascular disease (CVD) from time of enrollment in MTM to six months follow-up.

**Methods:** Patients who were enrolled in MTM services were offered the opportunity to participate in a project to collect longitudinal data related to MTM services and clinical outcomes. Data collected included responses to the Adherence to Refills and Medication (ARMS) scale, Medication Management Program (MMP) scale, SF-12 quality of life scale, ease of use of SmartPack (a medication packaging program), and clinical values for A1C, blood pressure, total cholesterol, glucose, and BMI.

**Results:** Seventy-one (N=71) participants completed the surveys. Participants improved over time in both ARMS and MMP, however the improvement was not significant as all participants had scored high in these metrics at baseline and six months. There was no change in SF-12 scores; all scores were within one standard deviation from normal scores. Participants did improve over time in three key metrics related to diabetes and CVD, including A1C (p=0.045), blood pressure (p=0.014), and cholesterol (p<0.001). For questions related to SmartPack, over 78% responded that the program was ‘easy to use’ compared to baseline experience (p=0.028).

**Conclusion:** Overall, several positive patient outcomes were correlated with enrollment in MTM. By improving the health, behavior, and environment of community members, pharmacist-provided MTM services can improve the health of and reduce costs for targeted populations such as patients with cardiovascular disease and diabetes, thus decreasing the disease burden on the population.
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Abstract Type: Research Based

Impact of One-way SMS Health Communication to Increase PrEP Intake in Non-HIV, STI Testing Patients: A Pre-Post Intervention Demographic Study

Rajmohan, Aruna; Hunt, Aaron; Luong, Tri; Robbins, Chris

Purpose: There are about 1.1 million people currently living with HIV and 15% are unaware of their HIV infection status. It is estimated 69% of new infections are transmitted by HIV patients who are not under medical care and about 23% of new infections are transmitted by individuals who are unaware of their HIV infection status. The purpose of the current pre-post demographic intervention study is to examine the impact of one-way SMS (short message system) health communications to increase Pre-Exposure Prophylaxis (PrEP) intake in non-HIV, STI testing patients.

Methods: De-identified, Pre- intervention demographic and PrEP intake data was collected from clinic visits between August 1, 2022, to October 31, 2022, and similarly post-SMS intervention data was collected between November 1, 2022, to Jan 31, 2023, from a sexual health clinic in the Southwestern United States.

Results: The results of the analysis indicated a significant increase in PrEP intake after the intervention from 46.8% to 53.2% (p<0.001). Demographic analysis indicated Hispanic or Latino’s, Caucasians, and age groups above 25 years old significantly improved PrEP intake (all p<0.05). Native American Indian and Alaskan Native showed the most drastic shift from 17.4% to 82.6%. No statistical increase in PrEP intake was observed among either the African American or Asian populations or with a previous STI positive (non-HIV) diagnosis. Those identifying as LGBTQ+ were significantly more likely to engage in PrEP versus those that identified as heterosexual (OR=11.7, p<0.001).

Conclusion: One-way SMS communication served as a cost-effective intervention model and had a positive impact on the overall rates of PrEP intake as well as significantly impacting the Hispanic or Latino, Caucasian and American Indian or Alaskan Native populations. The project also identified vulnerabilities within the PrEP program and highlighted potential focus areas for populations that did not benefit from the awareness campaign.
**Protective Experiences (PACES) are Associated with Alcohol Use in Adolescent and Emerging Adult Females by Dimension of Childhood Adversity**

Moyers, Susette A.; Doherty, Emily A.; Appleseth, Hannah; Crockett-Barbera, Erica K.; Croff, Julie M

Experiencing adverse childhood experiences (ACEs) has been associated with alcohol use in female adolescents and emerging adults. Protective and compensatory experiences during childhood (PACES) have been theorized to off-set the health and behavioral consequences from the accumulation of ACEs in childhood. This study examines the degree to which each PACE item is protective against frequency of alcohol use frequency and binge drinking over one month. These factors were examined by high and low levels of two ACE dimensions (household dysfunction and emotional abuse/neglect), in a sample of adolescent and emerging adult females who drink alcohol. One hundred forty-nine participants between the ages of 15-24 completed the 6-item ACEs scale, the PACEs scale, and demographics at baseline. Alcohol consumption was measured using the timeline follow back approach (TLFB) during weekly appointments over a one-month period. Overall, PACES items were not protective for frequency of alcohol use, nor frequency of binge drinking among those with high household dysfunction. However, in those with high emotional abuse/neglect, having adult mentorship other than a parent (B = -.443, 95% CI -7.94, -1.52, p < 0.01) and going to a school with resources and having experiences that facilitate learning (B = -.360, 95% CI -4.49, -.772, p < 0.01) predicted fewer binge drinking occasions than those who did not endorse these items in the adjusted model. By contrast, non-sport group membership was associated with increased alcohol frequency for high and low household dysfunction and low emotional abuse/neglect. This study provides initial evidence that PACE items have differential impact on alcohol outcomes in those with varying levels ACE dimensions. Once replicated in larger samples, future research could be applied in interventions to identify which protective factors have the most potential to off-set alcohol use by ACE dimension.
“Not sure why I’m writing all this... Just to organize my thoughts I guess.” Exploratory Topic Modeling and User Engagement with a Digital Journaling Tool for Caregivers of People Living with Alzheimer’s Disease and Related Dementias (AD/ADRD)

Pickett, Andrew, C; Valdez, Danny; Sinclair, Kelsey, L; Longanathar, Priya; Linden, Anna; Boutillier, Justin; Elliott, Christian; Zuraw, Matthew; Werner, Nicole, E

Purpose: Individuals living with Alzheimer’s Disease (AD) and Related Dementia (AD/ADRD) often rely on unpaid, family caregivers to aid in completion of daily tasks. Caregiver burden, which describes the perceived stress related to providing care, is well-documented. Journaling may be a useful tool in managing stress and anxiety associated with caregiving. This study analyzed user journals logged on CareVirtue, a digital application designed to support AD/ADRD caregivers. We identified primary themes among journal posts and explored relationships between these themes and use behaviors in the application.

Methods: We analyzed journal entries of 53 CareVirtue users, posted during a two-month period (n=1,555 posts; 170,212 words). We used an iterative neural network natural language processing tool to identify prominent topics within journal entries. Using computer-generated topics as a grouping variable, we explored differences in word count, user mood, and post sentiment (i.e., VADER scores) using analysis of variance.

Results: Initial analysis yielded 10 primary topics, including: holidays/special occasions, daily tasks, positive behaviors, medications, mealtime, sleep behaviors, hospice care, and bathroom behaviors (Coherence=.48). Significant differences were observed in word count (F=318.50, p<.001), user mood (F=25.68, p<.001), and semantic sentiment (F=24.47, p<.001). Posts related to bathroom behaviors and mealtime had significantly higher word counts than other topics. User mood was highest when writing posts related to holidays and mealtime, and significantly lower when discussing daily tasks and hospice facilities. Similarly, semantic sentiment was most positive when discussing holidays and mealtimes, but lowest when discussing medical care.

Conclusions: Users journaled about a broad range of topics associated with caregiving, including both positive and negative topics. The complexity of journal posts reflects the broad day-to-day experiences of caregivers, which were associated with variations in user engagement and mood state. Behavioral interventions should be designed to address the complex and varied experiences of AD/ADRD caregivers.
Abstract Type: Research Based

**Psychosocial Risk Factors of Stroke Among People Living with HIV (PLWH): Results from the Malaysian HIV and Aging Study**

Neelamegam, Malinee; Nguyen, Annie; Rajasuriar, Reena; Nhpang, Roi San; Patil, Shilpa; Srivastava, Aditi; Smith, Matthew

Purpose: Treatment with antiretroviral therapy (ART) has increased life expectancy of people with HIV (PLWH). While ART has transformed HIV into a chronic, manageable condition, PLWH are now experiencing unique chronic health issues. In this study, we examined the psychosocial risk factors of stroke in PLWH in a resource-limited setting.

Methods: We assessed the association between psychosocial risk factors and stroke risk (5-year risk and 10-year risk) among PLWH in Malaysia. Using the Malaysian HIV and Aging study, we analyzed data from 331 virally suppressed PLWH on stable ART. Psychosocial factors were assessed using the Lubben Social Network Scale-6 (social isolation) and Depression Anxiety Stress Scale-21 (DASS-21). The Stroke Riskometer™ digital application was used to determine the risk of developing a stroke in the next five and ten years, respectively. Linear regression models, controlling for demographic, clinical and HIV parameters, were used to assess the associations between psychosocial risk factors and stroke risk.

Results: Median age of participants was 43.8 years (IQR 37.7–51.0). Participants were predominantly male (82.8%) and on ART for 5.7 years (IQR 3.0–9.7). About 35% of participants reported social isolation and 10.6% reported severe depression. Median 5-year and 10-year stroke risk were 6.3% (IQR 3.5 – 9.8) and 15.9% (IQR 11.4 – 20.2), respectively. After adjusting for demographic, clinical, and HIV parameters, 10-year risk of stroke was significantly associated with severe depression ($\beta = 0.18$, $p = 0.03$) and being socially isolated ($\beta = 0.12$, $p = 0.02$).

Conclusion: The association between social isolation, depression, and an increased stroke risk among PLWH highlights the importance of recognizing and addressing psychosocial factors in resource-limited settings. These findings underscore the need for healthcare providers to consider a wide range of factors, including mental health and social support, when assessing and managing the overall health of PLWH.
Examining the Role of Aguas Frescas in Assessment of Sugary Drink Intake among Mexican and Mexican American Adults


Purpose: Reducing sugary drink intake is a primary objective for many nutrition interventions. Standardized beverage intake measures typically do not assess consumption of culturally specific sugary drinks. Aguas frescas are sugary drinks associated with Mexican food culture that are usually made with water, sugar, and fruit. This study examined the prevalence of aguas frescas consumption, sociodemographic and health-related correlates of aguas frescas intake, and how including aguas frescas consumption affects estimates of sugary drink intake among Mexican and Mexican American adults.

Methods: Data were obtained from the 2021 International Food Policy Study’s cross-sectional, online survey of adults in Mexico (n=5,377) and Mexican American adults in the U.S. (n=3,073). Consumption of sugary drinks was assessed using a standardized beverage intake measure. Additional questions measured aguas frescas consumption and sociodemographic and health-related covariates. Weighted logistic, linear, and longitudinal regression models were estimated.

Results: Approximately 61.7% of Mexican and 28.7% of Mexican American adults reported consuming aguas frescas in the past week. In both countries, almost half of those who consumed aguas frescas (45.5-47.3%) did not include them when responding to the standardized beverage intake measure. Mexican adults who consumed aguas frescas were more likely to be female, have low education, report being at the right weight, be of good to excellent health, and perceive themselves as consuming unhealthy levels of sugary drinks. Mexican Americans who consumed aguas frescas were more likely to be younger, use Spanish more than English, and report being underweight or at the right weight. The total volume of sugary drinks consumed in the prior week was 57.9% greater among Mexican and 42.3% greater among Mexican American adults when aguas frescas intake was included.

Conclusions: Estimates of sugary drink intake that do not include aguas frescas are likely to underestimate sugary drink consumption among Mexican and Mexican American adults.
Abstract Type: Research Based

Booster Fatigue: Characteristics and Attitudes of COVID-19 Vaccine-Hesitant Adults in Texas

Luningham, Justin, M; Krenek, Brittany, N; Desai, Palak; Siddique, Nitasha; Thompson, Erika, L; Vishwanatha, Jamboor, K

Purpose: As COVID-19 becomes endemic, mitigating future waves of serious illness due to COVID-19 may depend upon seasonal uptake of booster vaccinations. According to the CDC, only 20.5% of US adults received the 2022-2023 bivalent booster. An updated vaccine was recommended by the CDC in Fall 2023, but uptake has been slow. This study examined characteristics of COVID-19 vaccine-hesitant adults in Texas.

Methods: An online quota sample of Texas adults was collected for the Texas CEAL Consortium in June-July 2022. Participants (N=985) described their current vaccination status, willingness/intention to receive a COVID-19 booster, demographic characteristics, trusted sources of COVID-19 information, and confidence in the safety of COVID-19 vaccines. Participants were defined as vaccine-hesitant if they were a) unvaccinated and unwilling to receive vaccination, or b) partially vaccinated and not intending to receive a booster. Multivariable logistic regression determined odds of vaccine hesitancy across vaccine safety confidence, age, education, gender, and race/ethnicity. Descriptive analyses examined correlates of confidence in vaccine safety.

Results: Overall, 40.8% of respondents were vaccine-hesitant. Confidence in COVID-19 vaccine safety had a large influence on hesitancy. Compared to “somewhat confident” in vaccine safety, those responding “not at all” were more likely to be hesitant, OR=18.23, 95%CI (10.60, 32.88). Those responding “not too confident” were 3.71 times more likely to be hesitant (CI [2.37, 5.87]). Those responding “very confident” were less likely to be hesitant, OR=0.35, CI (0.23, 0.53). Vaccine-hesitant respondents were younger and without college degrees. Of those not confident in vaccine safety, only 11.9% and 10.5% reported “a great deal” of trust in the federal government and news media, respectively, to provide accurate COVID-19 information.

Conclusion: Promoting public confidence in the safety of COVID-19 vaccines could reduce booster hesitancy among Texan adults. Understanding characteristics and attitudes of vaccine-hesitant individuals may inform campaigns encouraging updated COVID-19 vaccinations.
**Board 125**

Abstract Type: Research Based

“I got diagnosed with HPV, now what do I do?”: Computational Insights Into the Human Papillomavirus (HPV) Subreddit Forum as a Valid Information Seeking Tool for Social Media Users with Questions about HPV

Valdez, Danny; Soto-Vasquez, Arthur, D.; Montenegro, Maria, S.; Liu, Xuejing; Gonzalez-Casanova, Ines; Patterson, Megan, S.; Massey, Philip, M.

BACKGROUND: A majority of sexually active adults will receive a diagnosis of Human Papillomavirus (HPV), a known cause of several reproductive cancers. Despite the availability of a safe and effective vaccine that can prevent 97% of cancer-causing HPV strains, vaccination rates consistently fall below the national 80% target. Previous research has identified that perceived stigma, lack of knowledge, and access barriers contribute to this gap. In such circumstances, Reddit, the second most trusted social media outlet with objectively high search rates for health issues, and Reddit forums may play a crucial role as an information source. However, research on the accuracy of these forums is lacking.

PURPOSE: This study employs computational analyses to extract themes from 1,985 unique Reddit posts in the r/HPV subreddit for evidence of accurate information sharing.

METHODS: We used the Bidirectional Encoder Representations from Transformers (BERT) topic modeling tool to generate and visualize themes in our data. ValenceAware Dictionary and sEntiment Reasoner (VADER) sentiment analysis gauged the affect or mood conveyed in each post.

RESULTS: Ten topics were identified (coherence score of 0.42), covering various aspects of HPV and HPV vaccination (e.g., infection, seeking advice/information, symptoms, fears). The information in these topics in general was accurate and showed signals of moderation. Posts predominantly conveyed a positive/affirming tone, with an average VADER score of 0.28. However, 11% of posts were categorized under “poor mental health following an HPV diagnosis.” A closer examination of these posts revealed ongoing anxiety about potential cervical cancer diagnoses following an HPV infection.

CONCLUSIONS: Our results suggest the presence of accurate and moderated HPV-related content on the HPV subreddit, spanning topics of prevention and treatment. These findings support the continued use of Reddit as a valid and acceptable tool for seeking health-related information on a sensitive, private, and sometimes controversial topic.
Board 126

Abstract Type: Research Based

Parent-Child Substance Use Communication Among Rural Latino/a Youth from Farmworker/Agricultural Families

Ruiz, Yumary; Jiang, Xue; Carlo, Gustavo; Thota, Aditya, K.; Taylor, Zoe E.

Rural Latino/a youth from farmworker/agricultural (LFW/A) families face unique stressors that may increase risk for early substance use. Parent-child communication can protect against initiation, however, limited research exists on how this communication happens within LFW/A families. Using a mixed-methods approach we explored how substance use discussions unfold in LFW/A families.

Participants included a subset of individuals participating in an ongoing longitudinal study. Survey data of 100 LFW/A youth (Mage=12.21 years, 51% boys) and 100 LFW/A parents (81% mothers, 85% foreign-born) was used to examine parental communication of substance use expectations, rules, and disapproval. Youth interview data was used (n=43, Mage=11.74, 42% male, 37% foreign-born) to understand perceptions related to parent-child substance use communication, views towards use, and parental expectations.

Descriptive analysis revealed that while most LFW/A mothers reported always discussing substance use expectations and rules with youth, most youth reported that parents sometimes or never communicate. This discrepancy may be linked to youth’s readiness to abstain from substances and parental willingness to discuss substances. For example, interviewed youth expressed disinterest in using and endorsing substances (35%), attributed substance use to individual stress and social pressures (58%), and shared discussing substance use consequences with parents (26%). When comparing interview and survey responses, youth who shared exposure to parental anti-substance messages in their interviews tended to report greater parental substance use expectations, disapproval, and rule-setting in their surveys.

Findings suggest that youth can hold autonomous and conscientious beliefs against substance use, and parent-child discussions can reinforce these beliefs. Thus, contradictory survey responses may not necessarily imply a lack of parental communication but, rather that exposure to repetitive and similar messages may be counterproductive. Findings not only underscore parents’ critical role in deterring substance use but also highlight a need for parents to diversify their anti-substance use messaging to keep youth engaged.
Racial Discrimination, Mental Health, and Interpersonal Violence in Racial/Ethnic Minority Adolescents

Lu, Yu; Lee, Jeong Kyu; McGuire, Hillary; Temple, Jeff, R.

The link between racial discrimination and interpersonal violence has been identified in racial/ethnic minority adolescents, yet little is known about the mechanism that explains this association. This study aims to examine whether adverse mental health (i.e., anxiety and depression) mediated the relationship between racial discrimination and interpersonal violence (i.e., bullying victimization, bullying perpetration, fighting) and tested whether the relationship varied among Hispanic, Black, and Asian adolescents. Waves 3 (2020) and 4 (2021) data of a school-based violence prevention program in southeast Texas were used. The analytical sample consisted of 1,568 adolescents, including 766 Hispanics, 458 Blacks, and 344 Asians. Participants self-reported to be 54.6% females with an average age of 14.6 years (SD=.60). Path analysis was performed in Mplus 8.7 to test the hypothesized mediation model. A total of 207 (13.4%) racial/ethnic minority adolescents reported experiencing racial discrimination (i.e., been verbally harassed due to their race) in the past year, including 9.8% Hispanic, 15.5% Black, and 18.5% Asian adolescents. Racial discrimination significantly predicted bullying victimization (beta* = .25, p<.001), bullying perpetration (beta = .19, p<.001), and fighting (beta = .13, p<.01) one year later. Racial discrimination indirectly influenced bullying victimization (beta = .01, 95% CI: .01, .02) and perpetration (beta = .02, 95% CI: .01, .03) via anxiety. Depression mediated the relationships between racial discrimination and (beta = .03, 95% CI: .02, .04), bullying perpetration (beta = .02, 95% CI: .01, .04), and fighting (beta = .03, 95% CI: .01, .05). Multigroup path analysis suggested these relationships tested did not vary across the three racial/ethnic groups. Overall, findings highlight the importance of including components to address racial discrimination in violence prevention programs and providing mental health counseling for racial discrimination victims.

*Standardized coefficient. The Greek letter beta is not shown properly on the submission page, thus we used “beta.”
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Abstract Type: Research Based

An Innovative Telehealth Approach for Continuing Education for Clinicians at Rural Hospitals in South Texas

Myint, Wah, W; Clark, Heather, R; Zemanek, Kim, A; Ward, Kayce; Mitchell, Stacy, A; Downing, Nancy, R

Background: Most rural Texas emergency departments are not sexual assault forensic exam ready (SAFE-ready), resulting in patient transfers to SAFE-ready facilities, often hours away. A technical support intervention, the Texas Teleforensic Remote Assistance Center (Tex-TRAC), provides rural clinicians with access to an expert Sexual Assault Nurse Examiner. A critical component of the intervention is ECHO-SAFE, a regular forensic healthcare education and mentoring using the Project ECHO® model. Topics vary each month and are informed by participants during workshop evaluation. This study describes the training topics conducted, and participant perceptions of increased knowledge and intention to change practice.

Method: Survey data was collected before and after each ECHO-SAFE session using the Qualtrics® web-based survey platform. Descriptive and logistic regression analyses were conducted on pooled data.

Results: Between August 2020 to May 2023, 21 topics were presented during Tex-TRAC ECHO-SAFE sessions. Introductory topics included overview of the Tele-ECHO platform, steps in a medical forensic examination, contents of a sexual assault evidence kit, and documentation. More advanced topics included neurobiology of trauma, strangulation assessment, vicarious trauma and managing specific populations (e.g., transgender patients, adolescents, trafficked victims). Among those who reported knowledge increase (N=173), more than half (57%) reported they would apply strategies and knowledge gained in three areas (professional practice behavior, improvement in care delivery, and improvement in nursing practice). Among those who responded to this question (N=104), a significant association was observed between those who reported knowledge increase and overall satisfaction (OR= 6.88; 95% CI: 1.36-34.76). Almost 60% reported planned practice changes included greater use of trauma-informed care.

Conclusion: The ECHO model has potential to improve the quality of forensic healthcare in rural Texas and is scalable to expand access to more healthcare providers across the state and beyond.
A Latent Class Analysis of Attitudes Towards Adolescent Vaccination Among U.S. Vietnamese Immigrant Parents

Milkie Vu; Timothy Hong; Duy Trinh

Purpose: While vaccine confidence is a critical public health issue, little research has explored this topic among Asian Americans. U.S. Vietnamese (e.g., those residing in the U.S. and identifying as Vietnamese) is the fourth largest Asian origin group in the U.S. Our study uses latent class analysis to characterize patterns of attitudes towards adolescent vaccination among U.S. Vietnamese immigrant parents.

Methods: Four hundred and eight U.S. Vietnamese parents of adolescents completed a web-based survey. Participants answered 17 questions about their attitudes towards adolescent vaccines, healthcare providers for their adolescents, and public health authorities responsible for vaccine development, approval, and recommendation (e.g., CDC, FDA). We conducted a latent class analysis in R.

Results: We identified four classes of adolescent vaccine beliefs among U.S. Vietnamese parents. The highly-confident class (52%) indicated high trust in adolescent vaccines, healthcare providers, and public health authorities. Compared to the highly-confident class, the moderately-confident class (25%) had lower trust; they also demonstrated more concerns around vaccine safety. The uncertain class (9%) often responded “I don’t know” when inquired about perceptions of vaccine safety, vaccine effectiveness, and public health authorities. Compared to all the other three classes, the skeptic class (14%) had higher concerns around vaccine safety and effectiveness and lower trust in public health authorities. We observed different distributions of class assignments by parents’ sociodemographic characteristics and acculturation level. In addition, class assignments were correlated with attitudes towards the HPV vaccine for adolescents.

Conclusions: Findings fill an important literature gap regarding the size and nature of attitudes towards adolescent vaccines of U.S. Vietnamese immigrant parents. Given the distinct classes of vaccine beliefs, tailored public health messaging is needed to enhance vaccine confidence and uptake among this population. Future studies should focus on crafting targeted messages based on the identified attitudes and beliefs to improve vaccine acceptance.
Board 130

Abstract Type: Research Based

The Relationship of Early Intervention Activities and 6-Month Weight Loss: What Predicts Weight Loss in a Behavioral mHealth Intervention?

Turner-McGrievy, Gabrielle, M; Delgado-Diaz, Diana, C; DuBois, Kelli, E; Monroe, Courtney, M; Wilcox, Sara

Objective: The mLife study is an ongoing 12-month intervention delivered through a mobile app in 2 cohorts. The intervention involves providing social support (up to 8 activities/day), reading tips of the day (5/wk), listening to podcasts (2/wk), and tracking physical activity (PA) and diet (daily). This study examined which intervention activities in the mLife app that occurred early (first 8 weeks) best predicted weight loss at 6 months among cohort 1 participants.

Methods: A linear regression model examined number of social support activities, podcasts completed, tips of the day read, and PA and diet days tracked as predictors of % weight loss at 6 months, adjusted for race, sex, and age.

Results: Participants (n=106, age 50.1±11.8 y, 93% female, BMI 33.6±5.5 kg/m2) were recruited for cohort 1 (n=90 complete 6-month weight data). At 8 weeks, participants completed a mean of 135.9±126.4 out of 448 social support activities, listened to 11.9±5.6 out of 16 podcasts, read 18.8±16.2 out of 40 tips of the day, monitored PA on 48.2±12.6 days and diet on 42.1±17.5 days out of 56 (PA was tracked significantly more often than diet; p<0.001). At six months, participants lost a mean of -3.9±5.3% of their weight. Only days of diet tracking significantly predicted % weight loss (R2=0.26, F(8.97) = 4.25, p<0.001), such that for every 10 days tracked, participants lost -0.9% of their body weight (B= -0.09, p=0.03).

Conclusion: The findings of this study can help inform future mHealth interventions by highlighting which intervention activities are most important to encourage early. Given low uptake of diet tracking and higher uptake of PA tracking (which is more passive and may be more rewarding for participants), it’s important to find ways to make diet tracking easier and more engaging.
Board 131

Abstract Type: Research Based

Violent Far-Right Extremists in the United States: A Profile for Prevention

Heckman, Timothy G.; Heckman, Bernadette D.; Markowitz, John C.; Kalichman, Seth; Halkitis, Perry N.; Jensen, Michael

Purpose: This study identified demographic, behavioral, and ideological characteristics of the most violent Far-Right extremists in the United States.

Methods: Data from the Profiles of Individual Radicalization in the United States (PIRUS) differentiated violent extremists (VEs; n=762) from less violent extremists (LVEs; n=852). Data characterizing Far-Right extremists radicalized between 1954 and 2021 (including many who participated in the January 6th insurrection) included information obtained from police reports, court records, websites, newspaper articles, journalistic accounts, witness interviews, psychological assessments and reports, and social media.

Results: Twenty-percent of Far Right extremists had either conducted, or intended to conduct, mass casualty attacks resulting in numerous deaths. Twenty-three percent of violent extremists were known or believed to have psychological disorders. Logistic regression analyses found that violent extremists were significantly more likely than less violent extremists to have been radicalized longer ago, have known or reputed histories of mental illness, and have criminal histories prior to radicalization.

Conclusions: Far-Right extremists pose a clear and present danger to the public's health. Interventions to mitigate threats posed by the Far Right should focus on extremists with histories of mental illness and criminal behavior prior to radicalization. Research that identifies psychological disorders most associated with violent behaviors in Far Right extremists is particularly needed.
Factors Associated with Telehealth Use Among Older Adults in the United States: Findings from the 2022 National Health Interview Survey

Park, Hye jin; Kim, Yongseop; Kim, Junhyoung

Purpose: Although the need for telehealth uses increased after 2020, the disproportion of use remains among vulnerable populations like older adults. Therefore, the aim of this study was to investigate the significant factors of telehealth use among older adults using a nationally representative sample of the United States.

Methods: Older adults (aged 65 and older) were drawn from the National Health Interview Survey 2022 to assess the post pandemic effect of using telehealth. For descriptive analysis, we used Pearson $\chi^2$ test to compare between telehealth users and non-telehealth users in the past year. Weighted multivariate logistic regression was conducted to examine predisposing, enabling, and needs factors based on the Andersen’s model of health services utilization.

Results: Overall, 30.5% of older adults reported telehealth use in the past 12 months (n=8,754). Predisposing factors: being in a younger age, lesbian/gay/bisexual/other, higher education level had greater odds of using telehealth, whereas living in non-metropolitan areas or in Midwest had decreased odds of using telehealth. Enabling factors: being in the lower poverty threshold and receiving food stamp were positively associated with using telehealth. Needs factors: older adults who had cardiac disease, cancer, anxiety disorder, and medicine for emotions were positively associated with telehealth use. Odds of using telehealth were increased for older adults with fair health perception, had experience of prescription drugs, and had difficulties in social functioning for errands compared to their counterparts.

Conclusion: This study found that older adults using telehealth had disparities based on age, sexual orientation, rurality, region, income, chronic health conditions, and social functioning. Considering the high needs of telehealth among older adults, solving health disparities in telehealth use among older adults is necessary.
Abstract Type: Research Based

Promotion of Cigar Products in Instagram “Stories”

Ganz, Ollie; Giovenco, Daniel P.; Ross, Jennifer Cornacchione; Spillane, Torra E.; Talbot, Eugene; Uriarte, Caitlin; LaVake, Melanie; Wackowski, Olivia A.; Delnevo, Cristine D.

Background: Cigar companies promote their products on Instagram, a popular social media platform among young people. Instagram’s “stories” feature – which displays ephemeral content that disappears after 24 hours – presents challenges for tobacco marketing surveillance and regulatory efforts. We conducted a content analysis in 2021 and 2023 of stories posted by cigar brands to identify common marketing strategies.

Methods: In June 2021 (n=110) and January 2023 (n=89), we took daily screenshots/video recordings of stories posted by 7 cigar brands. Stories were coded for features such as: story type (e.g., text only, photo, reel), warning statement presence and size, user engagement (e.g., polls), promotion of product features (e.g., flavors), and imagery. We conducted descriptive analyses by brand and marketing features.

Results: Both years, the most common story types were photos. In 2021, most posts were from Dutch Masters (32%), Backwoods (26%), and Cheyenne (16%); in 2023, most posts were from Al Capone (42%), Backwoods (17%), and Swisher Sweets (14%). In 2021 and 2023, of the stories that used engagement features (61% and 47%), quizzes/polls (64% and 30%), sliding rating scales (13% and 5%), and question boxes (11% and 5%) were the most common features. In 2021, warning statements were present on 81% of stories, compared to only 47% of stories in 2023; small warnings (i.e., less than one-third of the story) dominated both years (81% and 95%). In 2021 and 2023, of the stories that featured cigar packs (61% and 41%), the majority were flavored (87% and 84%) using either explicit flavor (78% and 85%) or implicit/concept (40% and 35%) descriptors.

Conclusions: Cigar companies leverage Instagram stories to engage with consumers and promote their products – especially flavored varieties – using appealing strategies to hundreds of thousands of platform users, many of whom are young people, which could promote product initiation and continued use.
Abstract Type: Research Based

Dynamic Relationships Between Social Media Use, Mental Problems, and Substance Use Among Youth: A National Longitudinal Study

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

Introduction: Previous studies have shown that social media use is linked to youth mental health problems and e-cigarette use. However, the relationships between social media use, mental problems, and substance use are dynamic in nature, such that youth could use substances as a coping method for mental issues. This study examined the reciprocal and longitudinal connections between social media use, mental health, and use of four leading substances among U.S. youth.

Methods: A total of 4,913 U.S. nationally representative youth from the Population Assessment of Tobacco and Health Study Waves 3-5 (2015-2019). Weighted generalized structural equation models with lagged dependent variables were performed to examine the dynamic and reciprocal relationships between youth’s social media use frequency, internalizing and externalizing mental problems, and past-12-month use of alcohol, e-cigarettes, cigarettes, and blunts, controlling for sociodemographic factors.

Results: Waves 3 and 4 social media use frequency (AORs ranged 1.16-1.27, ps<.001), internalizing symptoms (AORs ranged 1.15-1.25, ps<.001), and externalizing symptoms (AORs ranged 1.19-1.25, ps<.01) predicted Wave 4 and 5 alcohol, e-cigarette, and blunt use. Waves 3 and 4 social media use (βs ranged 0.04-0.06, ps<.01), use of alcohol (βs ranged 0.32-0.54, ps<.01) and e-cigarettes (βs ranged 0.26-0.79, ps<.001) predicted Waves 4 and 5 internalizing and externalizing mental problems. Externalizing symptoms were associated with subsequent social media use (β=0.09, p<.001 at Wave 4; β=0.04, p<.05 at Wave 5).

Conclusions: This study revealed the reciprocal and dynamic relationships between social media use, mental health problems, and substance use. Social media use in earlier waves was linked to subsequent alcohol and e-cigarette use. Social media use could create a reinforcing cycle of youth mental problems and substance use. Efforts should be made to educate youth about the impact of social media on substance use and to address mental issues associated with their use of social media.
Abstract Type: Research Based

Types and Brands of Derived Psychoactive Cannabis Products: An Online Retail Assessment


Background: The 2018 Farm Bill led to new types of intoxicating cannabis products being sold throughout the U.S. However, there is limited understanding of these derived psychoactive cannabis products (DPCPs), including their intoxicating compounds, modalities of use, and popular brands.

Methods: We analyzed the top 100 Google search results for “buy delta thc” using incognito mode to reduce biases related to search history. Using SimilarWeb, we quantified total visits to each website in April 2023. For the three top-trafficked websites that sold DPCPs (all U.S. based), we recorded information regarding each available DPCP (n=804). We cross-checked cases to validate and de-duplicated products on the same site that only differed in their quantity or flavor.

Results: Most products were disposable vapes (43%) or edibles (29%), followed by vape carts (18%), pre-rolls (7%), flower (2%), dabs (1%), and vape pods (<1%). There were 118 brands identified, with the most common being: Exhale, Delta Extrax, Cake, URB, Looper, TRE House, Binoid, ELYXR, Flying Monkey, Modus/Medusa, Mellow Fellow, Honeyroot, Maui Labs, Purlyf, Torch, STIIIZY, HiXotic, Galaxy Treats, Kalibloom, Space Gods, Wild Orchard, ZAZA, Trippy Sugar, Dimo, Pacha, and Tyson. There were 26 distinct intoxicating compounds in these products (listed in order of prevalence): Delta-8 THC, THCP, Delta-9 THC, HHC, THC-A, Delta-10 THC, THC-H, THC-B, THC-JD, THC-X, HHC-P, Delta-11 THC, THC-V, THC-O, Delta-6 THC, THC-M, HHC-O, HXC, HXCP, Delta-9o THC, THCP-O, THD, HHC-R, HXCo, and HCP. Overall, 54% of products were blends, containing 2 to 8 intoxicating compounds in a single product. We identified 185 different combinations of intoxicating compounds in these 804 products.

Discussion: This is among the first studies to systematically assess derived psychoactive cannabis products sold online. As the cannabis market rapidly evolves, public health professionals must make programmatic and regulatory decisions informed by the range of products promoted and available.
Abstinence Beliefs in Early Adolescence and Sexual Risk Behavior Two Years Later

Bhochhibhoya, Shristi; Edison, Briana; Baumler, Elizabeth, R.; Markham, Christine, M.; Emery, Susan, T.; Peskin, Melissa, F.; Shegog, Ross; Addy, Robert; Temple, Jeff, R.; Reidy, Dennis, E.; 

Purpose: The rates of teen pregnancy and sexually transmitted infections in the United States are among the highest of all developed countries. Attempts to reduce these rates have primarily focused on promoting abstinence-only sexual education programs that generally advocate for delaying sexual intercourse until marriage. These programs aim to change the knowledge and beliefs regarding abstinence among adolescents and encourage them to abstain from sex until marriage. Despite this focus, it is unclear whether adolescents’ beliefs about abstinence predict their sexual behavior, including sexual risk behavior (SRB). To address this question, we compare the longitudinal association between abstinence beliefs (i.e., abstaining completely until marriage) and beliefs about waiting for sexual debut with subsequent SRB 24 months later.

Methods: A total of 4620 (58.2% female) adolescents (mean age at baseline: 13.1(SD: 0.95) for males; 12.9(SD:0.90) for females) were included from a harmonized dataset collected from 3 randomized controlled trials. Three items ($\alpha = 0.71$) and four items ($\alpha = 0.75$) assessed abstinence beliefs and beliefs about waiting for sexual debut, respectively. Participants reported on a series of vaginal SRB (number of sex partners, frequency, drug use prior to sex, and frequency of condomless sex) at baseline and the 24-month follow-up. We used negative binomial regressions to identify associations between beliefs at baseline and SRB measured at 24-month follow-up.

Results: Results indicate that beliefs about waiting for sexual debut were protective against all SRB for both males and females. However, having stronger abstinence beliefs was not significantly related to any of the SRB measured two years later for both groups.

Conclusions: Findings suggest that beliefs about waiting for sexual activity are significant protective factors against vaginal SRB. Prevention programs should focus on convincing youth to delay sex until an appropriate age of maturity to prevent SRB and consequent negative sexual health outcomes.
**Board 137**

**Abstract Type:** Research Based

**Exploring Cannabis Concentrate Consumption among High-Risk College Students: Reasons, Risks, and Sociodemographic Influences**

Montemayor, Benjamin, N.; Flores, Sara, A.

**Purpose:** The United States has seen rapid diversification of cannabis products and the use of cannabis concentrates, especially among young adults. However, corresponding research is lagging. This study aimed to understand the reasons and risk factors associated with cannabis concentrate consumption among high-risk, cannabis-using college students.

**Methods:** Data were analyzed from a sample of 99 college students enrolled at a large U.S. public university who violated their university’s drug use policy. Respondents anonymously completed an online questionnaire, which assessed past-month cannabis frequency and quantity, alcohol co-use, and reasons for cannabis use (e.g., to relax or relieve tension, to feel good or get high, to have a good time with friends, etc.). Independent t-tests were analyzed, and a multivariable logistic regression model was conducted while including sociodemographic covariates.

**Results:** Most students in the sample were male (66.7%) and non-Hispanic White (65.6%). Over half (54.5%) were enrolled in their first year of school, and 23% reported recently using cannabis concentrates. Statistically significant differences existed between cannabis concentrates users and non-users regarding cannabis frequency (p<.01) and quantity (p<.001), and alcohol co-use (p<.05). Male students (adjusted odds ratio [AOR]=.12, p<.05) and those who used cannabis to seek deeper insight/understanding (AOR=.01, p<.01) were at decreased odds of using concentrates; however, respondents who were in their first year of college (AOR=5.9, p=.05), had higher cannabis quantity (AOR=1.6, p<.01), co-used alcohol (AOR=5, p<.01), and who used cannabis to feel good/get high (AOR=24.6, p<.05) or to cope with problems (AOR=34.1, p<.05) were at increased odds to use concentrates.

**Conclusions:** Cannabis concentrate use is associated with specific reasons and risk-factors among high-risk college students. The development of evidence-based online and face-to-face interventions that target identified factors and provide alternative recreational and coping strategies are urgently needed to address cannabis concentrate consumption.
Board 138

Abstract Type: Research Based

**Body Dissatisfaction and Health Risk Behaviors among Middle School Girls**

Perniciaro, Kelly; Zeglin, Robert; Terell, Kassie; Barr, Elissa

Purpose: Body dissatisfaction is defined as a negative perception or displeasure about body appearance or an identified body feature, which often results in attempts to modify weight. Previous studies demonstrate a relationship between body dissatisfaction and substance use and suicidal ideation among older adolescent girls and young women while less documentation exists for early adolescence. This study explored the relationship between reported weight loss attempts and substance use history and suicidal thoughts among younger female adolescents.

Methods: Participants (n=1,656) were middle school female students who participated in the 2019 Youth Risk Behavior Survey. Participants were coded as “trying to lose weight” and “not trying to lose weight.” Two hierarchal multiple binary logistic regressions were conducted, one for each dependent variable: 1) substance use history and 2) suicidality.

Results: Participants had a mean age of 12.63 and were mostly Black (35%) followed by White (30%). Fifty-seven percent were trying to lose weight while 40% of all participants reported suicidal thoughts and 45% of all participants reported substance use history. There was no significant relationship between trying to lose weight and race. Trying to lose weight was a significant predictor for both substance use (p<.01) and suicidality (p<.001).

Conclusions: Findings add to the sparse literature on body dissatisfaction, as indicated by attempting to lose weight, and its association with substance use and suicidal thoughts among middle school girls. The prevalence of all three behaviors among these young girls is concerning. The findings showing a relationship between trying to lose weight and substance use and suicidal thoughts reinforce the critical need to include comprehensive health education programming starting at younger ages to help prevent these health risks among middle school females as well as the need to have school counseling services available to youth experiencing these health issues.
Board 139

Abstract Type: Research Based

Sexual Minority Identities and Their Perceptions of Illicit Drug Use Risks in the US: Results from a National Survey

Lee, Yen-Han; López Castillo, Humberto; Chang, Yen-Chang

Purpose: It is a common belief that sexual minority individuals (lesbian, gay, or bisexual) may have a higher prevalence of illicit drug use compared to their heterosexual peers. This study examined the relation between sexual identities and perception of risks associated with illicit drug use among a nationally representative sample of US adults.

Methods: We analyzed data from three waves of the National Survey on Drug Use and Health (NSDUH 2017-2019), with 122,638 adult participants. Six survey questions assessing participants’ perceptions of the risks associated with illicit drug use (LSD, heroin, and cocaine) were subjected to principal component analysis. The first statistical model used was an ordered logistic regression and the second model incorporated an interaction term to explore potential disparities between large, small, and non-metropolitan areas.

Results: Geographic distribution showed that participants resided in large (44.6%), small (35.5%), and non-metro (19.9%) areas, and overall 2.3% identified as lesbian/gay and 5.5% identified as bisexual. Compared to heterosexual participants, lesbian and gay individuals (adjusted odds ratio [AOR] 1.67; 95% confidence interval [CI] 1.45, 1.93) and bisexual individuals (AOR 1.70; 95% CI 1.54, 1.88) were more likely to perceive illicit drug use as low risk. In the interaction model, bisexual participants residing in small metropolitan areas were significantly less likely to perceive illicit drug use as low risk (AOR 0.75; 95% CI 0.59, 0.95).

Conclusions: Sexual and gender minority individuals are at least 67% more likely to perceive illicit drug use as low risk. Bisexual populations residing in small metropolitan areas are 25% less likely to perceive illicit drug use as low risk, showing an interaction of identity and place of residence. Illicit drug use prevention strategies, then, should consider the risk perception disparities by sexual and gender minority populations and the interaction with the environment they dwell in.
Assessing Biases of Ideal Body Images Generated from Stable Diffusion

An, Ruopeng; Wang, Xi; Chen, Chen; Yang, Fan

Introduction: Body dissatisfaction has been linked to various risk behaviors and health issues, such as low self-esteem, eating disorder, and depression. The narrow representation of body image in the media frequently imposes unrealistic, unattainable body shape ideals on individuals. The internalization of body shape ideals may urge people to mold their bodies to fit them, resulting in the onset of body dissatisfaction. Generative artificial intelligence (AI) models play an increasingly essential role in content generation and dissemination on social and mass media platforms. Societal biases concerning gender, age, and race and lacking representation for marginalized minority groups in the training samples may penetrate AI model inferencing, generating biased media content that can harm consumers.

Methods: Stable Diffusion is a state-of-the-art AI model for image generation using text prompts. This study assessed biases in representing female and male body shape ideals in images generated by Stable Diffusion. We used Stable Diffusion to generate 2,000 images of female and male “ideal bodies.” Three raters independently evaluated each image using predetermined metrics, including Stunkard’s figure rating scale (FRS) and four dichotomous variables for being white, an adolescent/young adult, non-obese, and physically fit.

Results: FRS scores of ideal body images generated from Stable Diffusion averaged 3.91 (standard deviation [SD] = 0.61) in the overall sample and 4.09 (SD = 0.64) and 3.72 (SD = 0.50) among the female and male images (p-value < 0.05). The rates of being white, an adolescent/young adult, non-obese, and physically fit occupy 74.15%, 99.40%, 99.95%, and 97.70% in the overall sample. Compared to female images, the rates of being an adolescent/young adult and physically fit are slightly higher, and the rate of being white is lower among male images (p-values < 0.05).

Conclusion: Body images generated by Stable Diffusion lacked diversity in body shapes and largely excluded middle-aged and older adults, racial/ethnic minorities, people with obesity, and those physically less fit. Improving the diversity and population representativeness in AI content generation may help prevent body dissatisfaction and associated health risks among media consumers.
Sentiment Analysis of Tweets on Menu Labeling Regulations in the US

Yang, Yuyi; Lin, Nan; Batcheller, Quinlan; Zhou, Qianzi; Anderson, Jami; An, Ruopeng

Introduction: Menu labeling regulations in the US mandate chain restaurants to display calorie information for standard menu items, intending to facilitate healthy dietary choices and address obesity concerns.

Methods: Utilizing a systematic search algorithm on the Twitter API, 7,253 tweets from 2008 to 2022 were collected and categorized as "positive," "negative," "neutral," or "news." Natural Language Processing (NLP) models, specifically RoBERTa, XLM-RoBERTa, and Twitter-XLM-RoBERTa, were fine-tuned using transfer learning and text augmentation to classify sentiments. A random forest model assessed the relationship between tweet sentiments and various covariates, such as the author’s overall Twitter activity and follower count.

Results: The analysis revealed fluctuating public engagement that peaked around significant policy announcements. A majority of the tweets were categorized as "news," followed by "neutral" sentiments. Over time, a shift was observed from news dissemination to a rise in neutral and, to a lesser extent, negative sentiments, signifying a transition from informational to exploratory or critical public discussions. Key predictors influencing tweet sentiments included the author’s overall Twitter activity and number of followers. The NLP models, primarily RoBERTa, effectively classified tweet sentiments (an accuracy of 91.5% and an F1 score of 91.1%), with certain models benefiting from text augmentation strategies.

Conclusions: This study illuminates the evolving public sentiment towards menu labeling regulations in the US, demonstrating a peak in engagement in 2010, with subsequent fluctuations and a noticeable increase in neutral sentiments over time. Insights derived from this analysis, such as the identification of key predictors of tweet sentiment and the prevailing neutral stance, are instrumental in informing and refining the development and implementation of menu labeling policies to bolster public understanding and support.
Board 142

Abstract Type: Research Based

Assessing the Caregiving Needs and Evaluating the Olera.Care Web-Based Platform for Caregiving of People Living with Dementia

Fan, Qiping; Hoang, Minh-Nguyet; DuBose, Logan, Lee; Ory, Marcia, G; Lee, Shinduk; Vennatt, Jeswin; Salha, Diana; Falohun, Tokunbo

Purpose: The needs and expectations of caregivers, especially those caring for people living with dementia (PLwD), are often neglected. This study evaluates the usability and functionality of the web-based platform Olera.Care in meeting the needs of caregivers of PLwD.

Methods: Adult non-paid caregivers in Texas, actively caring for PLwD, were recruited for this study. Participants engaged in two rounds of Zoom interviews in 2022, communicated their needs, interacted with the platform, and completed modified Mobile Application Rating Scale (MARS) via Qualtrics. The MARS used a 5-point scale to measure engagement, functionality, aesthetics, and information. Descriptive analyses calculated mean scores and standard deviations (SD) for caregiver evaluations of the platform. Two-sample t-tests were conducted to assess MARS score differences by caregivers’ characteristics.

Results: Of the 30 caregivers who completed the technology survey assessment, participants had a mean age of 61.57±2.23 years, with 76.7% being female, 83% White, 10% Hispanic, and 53.3% employed. The most used elder care providers were home health, hospice, and certified financial planners. Most needed care included caregiver support groups, medical providers, and memory care. The overall rating of the digital platform was 4.57, with mean scores for engagement, functionality, aesthetics, information, and subjective quality being 4.10, 4.46, 4.58, 4.76, and 4.15, respectively. Furthermore, caregivers dedicating at least 20 hours to care weekly rated Olera’s functionality higher (Mean=4.6, SD=0.4) than those providing less care (Mean=4.2, SD=0.5), and caregivers with less than five years of experience reported significantly higher aesthetics (4.7 vs 4.3) and information (4.8 vs 4.6) scores compared to those with at least five years of caregiving experience.

Conclusion: The Olera.Care web app is a practical, interactive, user-friendly, visually appealing, and informative digital platform addressing the needs of family caregivers of PLwD. Tailoring health information technologies to caregiver needs may enhance user satisfaction and engagement.
Peer Protection: Social Connections and Adolescent Mental Health in Summer Youth Development Programs

Prochnow, Tyler; Patterson, Meg, S.; Jackson, Deja; Curran, Laurel, S; Flores, Sara, A; Brown, Amelia; Howell, Emily; Massey, Philip; Blake, Jamilia

Purpose: Social connectedness is vital for adolescent psychosocial development and mental health. Because summer can be a time of social transition and peer network disruption, summer youth development programs provide a place for adolescents to develop socially and emotionally. The purpose of this study was to determine the influence of psychological distress on adolescent social connections at a summer youth development program.

Methods: Adolescents, ages 10-14, enrolled in a central Texas Boys & Girls Club reported psychological distress (i.e., Kessler Psychological Distress Scale; K10) and friendship nominations (e.g., who they hung out with most in the summer program) in May 2023 and August 2023 via researcher administered surveys. Separable temporal exponential random graph modeling was used to determine if psychological distress influenced the formation or persistence of social connections across the summer.

Results: Adolescents (n=47; M=11.0 years old; SD=1.3; 51.1% female) reported low levels of psychological distress (MK10=18.8; SD K10= 7.6) indicating they were “likely to be [psychologically] well” with higher K10 scores reflecting elevated risk for psychological distress. Adolescents were significantly more likely to receive friendship nominations over time if they reported greater K10 scores; however, greater K10 scores were not significantly associated with reduced odds of sending new nominations. Similarity in K10 scores did not increase the odds of friendship nominations forming or persisting between adolescents.

Conclusions: Results suggest adolescents are aware of those in their peer circles who experience psychological distress and may respond pro-socially by hanging out with these youth (i.e., sending a tie to people with higher distress). Future research should further explore if integration into social circles (i.e., degree of network centrality for adolescents with elevated psychological distress) and the quality of relationships within peer networks serve as protective factors for adolescent mental health.
Abstract Type: Research Based

Results From The FELLAS Fatherhood Evaluation

Young, Michael; Cox, Kevin

Purpose: Fathers are a positive influence on their children’s health behaviors. Additionally, loving and involved fathers have children who are more likely to do well in school, have healthy self-esteem, and avoid high-risk behaviors, including drug use, truancy, and criminal activity. That is why responsible fatherhood programs, even when specific health measures are not a program focus, have the potential to impact child health. The purpose of this pilot study was to evaluate the effects of a fatherhood program provided in Essex County, in Northern New Jersey. Specifically, researchers sought to: (1) examine changes in communication, conflict resolution, financial management, importance of being a parent, and positive parenting skills among fathers participating in the FELLAS fatherhood program, and (2) determine whether immediate pretest-posttest changes were maintained at six-month follow-up.

Methods: A community agency recruited fathers (n=225) to participate in a 35-hour program designed to help fathers improve relationships, and parenting skills and make progress toward economic stability. Participating fathers completed self-report questionnaires prior to the beginning of the program, at the end of the program, and six-months after the program.

Results: Results showed improvement from pretest to posttest for four of the five outcome measures (p<.001). These changes were maintained at the six-month follow-up for two of the variables; conflict resolution (p<.05) and financial management (p<.01). Effect sizes measured by Cohen’s d, for outcomes that were statistically significant, were small at both posttest (.11 to .15) and follow-up (.14 and .16).

Conclusions: Though this was not an impact study and no direct health measures were included, these results are encouraging. The positive results set the stage for a more rigorous evaluation of the intervention, and the inclusion of a specific health behavior component. Additionally, future fatherhood researchers should include interventions that specifically address health issues and examine direct health outcomes.
Changes in Obesity Prevalence Among U.S. Adults After the COVID-19 Pandemic by State and Territorial Stay-At-Home Order Level and Sociodemographic Characteristics

Cho, Beomyoung; Pan, Yining; Chapman, McKinley; Spaulding, Aaron; Stallings-Smith, Sericea

Purpose: Little is known about the changes in obesity prevalence among nationally representative U.S. adults using a distinct pre- and post-COVID-19 pandemic timeframe. The purpose of this study is to examine changes in obesity prevalence among U.S. adults after the COVID-19 pandemic by the level of stay-at-home order and sociodemographic characteristics using a distinct pandemic timeframe, adjusting for a secular increasing trend of obesity prevalence.

Methods: A pooled dataset of the 2018-2021 Behavioral Risk Factor Surveillance System was analyzed (n = 1,107,673). States/territories were classified into three levels of stay-at-home order: none, advisory/only for persons at risk, or mandatory for all. The difference-in-differences method was conducted with weighted multiple logistic regression analysis to examine obesity (body mass index ≥30 kg/m²) prevalence by stay-at-home order level and sociodemographic characteristics before/after the COVID-19 pandemic (January 2018-February 2020 vs. March 2020-February 2022), adjusting for a secular trend and covariates (sex, age, race/ethnicity, education level, annual household income, current cigarette smoking, binge drinking, leisure time physical activity, days of poor mental and physical health, and metropolitan status).

Results: Adults in states/territories with mandatory stay-at-home orders experienced a larger increase in obesity prevalence (adjusted odds ratio: 1.05; 95% confidence interval: 1.01, 1.10) than adults in states/territories with no stay-at-home order. Younger adults (vs. ≥65 years) and individuals with <high school education (vs. ≥4-year college) experienced a larger increase in obesity prevalence. There was no significant difference in the change of obesity prevalence between adults in states with advisory/only persons at risk order and no stay-at-home order.

Conclusions: The study findings suggest that mandatory stay-at-home orders were associated with increases in obesity prevalence that exceeded existing trends. Concurrent health programs should be considered to minimize unintended effects of mandatory stay-at-home orders and guide non-elderly adults and individuals with lower education levels.
Physical Pain, School Engagement, and Volunteer and Paid Work among U.S. Adolescents

Gregory, Kayleigh, A; King, Keith, A; Vidourek, Rebecca, A; Merianos, Ashley, L

Purpose: A major public health problem facing U.S. adolescents is physical pain that is persistent or repetitive over a three-month period. A better understanding of how physical pain may influence engagement in school and in volunteering and paid work after school among U.S. adolescents is critically needed. The study objective was to examine the associations between physical pain and engagement in school, community service or volunteer work, and paid work among U.S. adolescents.

Methods: We performed a secondary analysis of the 2018-2019 National Survey of Children's Health data including 24,680 U.S. adolescents ages 12-17 years. We conducted unadjusted and adjusted logistic regression models to assess the associations between adolescent physical pain and engagement in school and participation in community service or volunteer work and paid work in the past 12-months. Adjusted models included the covariates of adolescent age, sex, race/ethnicity; parent education level; family household structure and federal poverty level.

Results: A total of 13.5% (n=3,357) of adolescents had difficulty with physical pain in the past 12-months. A total of 46.6% (n=11,087) of adolescents were engaged in school, and 52.7% (n=14,257) participated in community service or volunteer work and 37.3% (n=11,564) participated in paid work in the past 12-months. Unadjusted (odds ratio [OR]=0.66, 95% confidence interval [CI]=0.56, 0.79) and adjusted (adjusted OR [aOR]=0.61, 95%CI=0.53, 0.73) logistic regression model results indicated that adolescents with physical pain were less likely to be engaged in school compared to adolescents without physical pain. No differences were found between physical pain and participation in community service or volunteer work and paid work in the past 12-months.

Conclusions: These results indicate that it is important to address physical pain in order to increase adolescents’ engagement in school. Professionals who work with adolescents should also consider school and community influences, especially for those with physical pain.
Board 147

Abstract Type: Research Based

**Differences in Receptivity to Menthol Cigarette Advertising Between Adults With and Without Anxiety and Depression**

Ganz, Ollie; Young, William; Bover Manderski, Michelle; Cantrell, Jennifer; Delnevo, Cristine D

Adults with common mental health problems (MHP) report disproportionately high prevalence of cigarette smoking, including menthol cigarette smoking. One potential driver of cigarette disparities is elevated receptivity to tobacco advertising, yet receptivity to menthol cigarette advertising specifically has not been examined. This study examines receptivity to menthol cigarette advertising among those with and without MHP. 2,518 U.S. adults completed Wave 6 of the Rutgers Omnibus Study (May 2023). Participants were randomized to view 1 of 2 ads for menthol cigarettes and were asked 4 questions adapted from the PATH Study to assess receptivity, including whether: 1) they had seen the ad in the past 12 months, 2) they liked the ad, 3) the ad made them curious about the product, and 4) the ad made them want to try the product. MHP was defined as having symptoms of anxiety or depression. Bivariate and multivariable models examined associations between MHP and each receptivity variable. Multivariable models controlled for condition, age, race/ethnicity, and smoking status. We also examined interactions between MHP and smoking status. Chi-square tests revealed that a greater proportion of adults with MHP reported receptivity across all 4 measures vs. those without MHP (p<.01). In multivariable models, adults with MHP reported greater odds of seeing the ad in the past 12-months (aOR: 1.56, p<.05) and that the ad made them curious about the product (aOR: 1.35, p<.01). There were no significant interactions between MHP and smoking status. Findings suggest that adults with MHP report greater odds of ad recall and favorable response to menthol cigarette ads (i.e., curious about the product) than those without MHP. Given that menthol cigarettes are associated with increased initiation, greater nicotine dependence, and decreased cessation, research is needed to understand the role of advertising in menthol cigarette use for this high-risk group.
Board 148

Abstract Type: Research Based

Widespread Misperceptions About Tobacco Company Engagement in Black Communities

Sterling, Kymberle L.; Ganz, Ollie; Wackowski, Olivia A.; Glasser, Allison M.; Villanti, Andrea C.

Background. Menthol and flavors make up a large proportion of the cigarette and cigar market in the U.S., bringing sustained profits to U.S. tobacco companies at the cost of Black/African American (B/AA) lives. Tobacco companies have also cultivated relationships with B/AA civic and community organizations. The goal of this study was to describe perceptions of tobacco company engagement and activities in B/AA communities related to menthol cigarettes and flavored cigars.

Methods. Wave 4 of the Rutgers Omnibus Study (December 2022) was completed by 2,307 U.S. adults aged 18-45. Six items measured beliefs about tobacco company funding of B/AA community organizations, payment of B/AA lobbyists to oppose public health policies, support of health equity efforts in B/AA communities, and targeted marketing of menthol cigarettes and flavored cigars in B/AA communities. Adjusted prevalence estimates were calculated for each belief item overall and by race (B/AA vs. other) and cigarette smoking status (current menthol vs. current non-menthol vs. no current use), controlling for age, sex, and education.

Results. Few participants believed that tobacco companies deny the harms of menthol cigarettes (37%) and flavored cigars (37%), pay Black lobbyists to oppose health policies (20%) and fund Black community organizations (12%). A higher proportion of B/AA adults believed that tobacco companies target Black communities with menthol cigarette and flavored cigar marketing (62% vs. 46%). Compared with people who do not smoke cigarettes, a greater proportion of adults who smoke cigarettes believed that tobacco companies support health equity efforts, did not target Black communities with menthol cigarette and flavored cigar marketing, and did not deny the harms of menthol cigarettes and flavored cigars to B/AA communities. Similarly, a greater proportion of adults who smoke menthol cigarettes believed that tobacco companies fund Black community organizations (18% vs. 10%) and that tobacco companies do not pay Black lobbyists to oppose public health policies (26% vs. 14%).

Conclusions. Community-engaged, culturally-tailored communication efforts are needed to correct disinformation about flavored tobacco policies among B/AA and those who currently smoke menthol cigarettes. Increasing awareness of how tobacco companies engender B/AA community goodwill while actively opposing tobacco policies that would improve B/AA health may be an important part of such communications.
Assessing the Impact of Social Media on Adolescents’ Mental Health and Sleeping Using Ecological Momentary Assessment (EMA): A Systematic Review

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Purpose: Conceptualization and assessment of social media’s impact on adolescent mental health and emotional well-being has evolved in recent years due to methodological advantages and rapid advancement in mobile technologies. This systematic review aims to elucidate the association between social media use and adolescents’ mental health and sleeping.

Methods: A systematic search across four databases, including Academic Search Ultimate, CINAHL Ultimate, Health Policy Reference Center, and MEDLINE, was conducted for English articles published from January 2003 to April 2023. Articles utilizing EMA to study the influence of social media on adolescent mental health and/or sleeping were included. Screening, full-text review, and data extraction were performed by four teams of two reviewers in accordance with the Preferred Reporting Items for Systematic Review and Metanalyses (PRISMA) guideline. The quality of the studies was assessed using Checklist for Reporting EMA Studies.

Results: Twelve studies met the inclusion criteria with a total of 2,226 adolescents. A majority of these studies was conducted in the United States (N=10, 83%). Participants’ ages ranged from 11 to 17 years, with a notable overrepresentation of white participants (N=8, 67%). Across the studies, mobile phones (N=11, 92%) and computer (N=1) were utilized to deliver EMA prompts. The EMA duration varied from 3 to 7 days, involving 1 to 3 prompts per day. Only two studies had follow-up periods of one year or more. Among the 12 papers reviewed, five studies (42%) reported a significant positive association between online time expenditure and sleeping deprivation, experiencing attention deficit-hyperactivity disorder (ADHD) and negative emotions from interactive social media use.

Conclusions: To enhance our understanding of the impact of social media on adolescents across different racial groups, future EMA interventions should prioritize the inclusion of minority populations in their research endeavors.
Rival Mediated Pathways of Frequent Social Media Use, Electronic Nicotine Delivery Systemts Use and Internalizing Mental Health Problems

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Background: The present study aimed to examine four a priori rival mediated pathways of frequent social media use, electronic nicotine delivery systems (ENDS) use and internalizing mental health (MH) problems across five waves of nationally representative data.

Methods: Data were drawn from Wave 2 to Wave 5 of the Population Assessment of Tobacco and Health Study, a nationally representative cohort study spanning about 4 years. The analytic sample included those who were ages 12-14 years at Wave 2 and who provided data in subsequent waves until Wave 4.5 (N=4,627, 69.7% were White and 51.4% were male). Frequent social media use (several times a day), ENDS use (past 30-day use), and internalizing MH problems (endorsed symptoms on four items in the past year) were dichotomized for analysis.

Results: The weighted proportions of the three key variables kept increasing over time. From Wave 2 to Wave 5, frequent social media use grew from 56.9% to 77.2%; internalizing MH problems from 18.9% to 29.0%; and ENDS use from 1.4% to 11.4%. There was a significant within-person association of one-wave time-lead frequent social media use with ENDS use [adjusted odds ratio (aOR) = 1.87; 95% CI = 1.47, 2.37] and with worsened internalizing MH problems (aOR = 1.19; 95% CI = 1.04, 1.37) in the weighted logistic regressions with the generalized linear mixed model with random effects. A model-based causal mediation analysis was conducted to estimate the average causal mediation effect. Across all the four examined mediation pathways among the three variables, partial mediation was observed, and all the pathways were significant for both boys and girls. Sex differences did not emerge in the examined prospective mediated pathways.

Conclusions: Frequent social media use appears to play an important role in the prospective association between experiencing internalizing MH problems and ENDS use.