



American Academy of Health Behavior
Poster Session
Sunday, March 19, 2017
6:00 – 7:30 PM

Board 1

Social Norms and Binge Drinking: Comparing Differences among National Samples of Adolescents and College

Merianos A, Barry AE, Oluwoye OA, Jackson ZA

Purpose: Binge drinking represents an important public health concern. Alcohol-related behaviors of adolescents and young adults are influenced by what they perceive as the frequency and quantity of drinking among their peers. Therefore, we examined two nationally representative samples to: (1) assess whether underlying theoretical constructs were associated with alcohol-related group norms, and (2) determine the extent to which social norms influence adolescent-aged and college-aged binge drinking behavior, above and beyond confounding variables. Methods: Secondary data analyses of the National Survey on Drug Use and Health (NSDUH) assessing adolescents 12-17 years old (N=15,590) and the National College Health Assessment (NCHA) assessing undergraduate student drinkers (N=15,590). Data were analyzed by conducting logistic and linear regression analyses. Results: NSDUH results revealed that social norms of alcohol use ($p < .001$) predicted binge drinking while controlling for age, sex, race/ethnicity, and socioeconomic status. Adolescents who perceived most/all of their peers engaged in alcohol use were 4.28 times more likely (CI=4.26,4.30, $p < .001$) to report binge drinking as compared to those who perceived none/some of their peers used alcohol. Among adolescent binge drinkers, those who perceived that most/all of their peers engaged in alcohol use increased the number of days they binge drank ($\beta = 0.10$, $p < .001$). NCHA results indicated as quantity of perceived alcohol consumption increased, so too did the likelihood that a student would report binge drinking (CI=1.181,1.215 $p < .001$), above and beyond covariates. Undergraduate drinkers' perception of the quantity of alcohol consumed by peers during their last party/socialization was significant ($\beta = .193$, $p < .001$). Conclusions: Social norms have a strong influence on alcohol use among adolescents and young adults, which may lead to increased binge drinking. Given that social norm misperceptions were related to higher binge drinking in our study, it is important for researchers to establish actual peer use rates versus perceived rates for adolescents and college students.

Board 2

The Relationship Between Self-Perceptions of Alcohol Intoxication and Breath Alcohol Concentration (BrAC)

Courchesne N, Reed MB, Clapp JD, Rossheim ME, Ruderman D

Purpose: The purpose of this study was to test the concurrent validity of a single measure of self-perceived alcohol intoxication using data from three different field research studies in three different settings examining drinking behaviors among late adolescents and young adults on a college campus, at college parties, and in a bar district popular with college students. Method: We utilized data collected as part of three separate field studies examining the etiology of college student drinking behaviors for this study. In each study participants were asked to indicate how intoxicated they felt at the moment (1 = no buzz, 2 = slightly buzzed, 3 = a little drunk, 4 = very drunk) as well as to provide a breath alcohol concentration (BrAC) sample as an objective measure of alcohol intoxication. Given the nested nature of the data (i.e., participants nested within groups, parties, and bars), multilevel modeling was used to account for the non-independence of observations in each of the three datasets. Results: After controlling for the grouping effect in each dataset, the results indicated a significant relationship between the measure of self-perceived intoxication and BrAC for the college campus data (Beta =

0.635, $p < 0.001$), the party data (Beta = 0.430, $p < 0.001$), and the bar data (Beta = 0.570, $p < 0.001$). Conclusions: Overall, the measure of self-perceived alcohol intoxication was moderately correlated with BrAC in each of the study settings. These results suggest that this single measure of self-perceived alcohol intoxication had good concurrent validity and could serve as an indicator of intoxication when objective measures of alcohol intoxication such as BrAC are not feasible or possible to collect.

Board 3

Impact of Self-Concept on Alcohol Use in Youth

Bartsch LA, King KA, Vidourek RA, Merianos AM

Adolescent alcohol use is a major public health problem in the United States. While prevention efforts are common, alcohol still remains the most commonly used and abused substance among today's youth. Few studies have examined the relationship between specific components of mental health (i.e. self-concept) and alcohol use, particularly across the varying developmental years. The primary aim of this study was to investigate the impact of self-concept on recent alcohol use (past 30 days) and recent binge drinking (five or more alcoholic beverages on one occasion) across three developmental ages. This study employed secondary data analysis using the National Longitudinal Study on Adolescent to Adult Health (Add Health). All participants were in grades 7-12 (N = 6,504) and completed the computer assisted in-home interview. A total of 17.3% of youth reported recent alcohol use and 11.3% reported recent binge drinking. Overall, recent alcohol use and recent binge drinking increased with increased grade levels. Youth who were male and white were also more likely than their counterparts for recent alcohol use and recent binge drinking. Youth with low self-concept were at increased odds for recent alcohol use. This held true regardless of sex, race and grade. Youth with low self-concept were at increased odds for recent binge drinking among male and female students, white students, and students in grades 7-8 and grades 11-12. Students in grades 7-8 with low self-concept had the highest odds ratios for recent alcohol use and recent binge drinking in comparison to students in grades 9-10 or 11-12 with low self-concept. Results of this study underscore the importance for health educators and preventionists to consider the impact of self-concept on youth substance use at differing grade levels when developing substance abuse prevention efforts.

Board 4

Factors Associated with Self-Estimated Breath Alcohol Concentration among Bar Patrons

Rosshem ME, Barry AE, Thombs DL, Weiler RM, Stephenson C, Krall JR, Reed MB, Clapp JD, Suzuki S, Walters ST

Background: To provide better insight on why people may drive after drinking alcohol, it is critical to identify the conditions in which drinkers underestimate their breath alcohol concentration (BrAC) in a natural drinking environment. Unfortunately, the literature on this topic is sparse. The current study examined factors associated with bar patrons' self-estimated BrAC in a high-risk college town setting. Methods: Guided interview and BrAC data were collected from 510 participants recruited as they exited bars located close to two major universities: one in Florida and one in Texas. Results: Participants with the highest measured BrACs underestimated their BrAC levels the most. Findings from multivariable linear regression analysis indicated that BrAC (std $\beta = 0.239$, $p < 0.001$) and number of alcoholic drinks consumed (std $\beta = 0.123$, $p < 0.01$) had significant positive associations with BrAC self-estimates. However, the association between estimated BrAC and perceived drunkenness was greatest in magnitude (std $\beta = 0.451$, $p < 0.001$). Among the 321 participants legally intoxicated for driving (BrAC ≥ 0.08 g/dL), 21.2% believed their BrAC was below the legal limit. Results from a logistic regression analysis indicated that higher levels of perceived drunkenness was associated with better self-recognition that one's personal BrAC level exceeded the legal driving threshold (OR = 3.32, $p < 0.001$). Further, participants under 26 years of age had reduced odds of recognizing that they were legally

intoxicated (OR = 0.24, $p < 0.05$). Conclusions: Given the inability of many drinkers to accurately self-assess their BrAC level, external alcohol-impaired countermeasures that seek to minimize intoxication levels of drinkers and deter driving should be the focus of future interventions.

Board 5

Patterns of Substance Use among Different Young Adult Peer Crowds

Moran MB, Villanti AC, Johnson A, Rath JM

Purpose: Identity is an important, yet understudied, predictor of health behavior. Social identity as a member of a group or social category is of particular relevance to young people. Peer crowd identity (identification with a macro-level crowd or subculture, e.g., Preppies or Skaters) is associated with risk behavior. This work has primarily focused on adolescents, but newer work suggests peer crowd identity is also important for young adults. This study describes patterns of substance use across young adult peer crowds. Methods: A nationally representative sample of 1,341 young adults aged 18-24 participated in an online survey between June - July 2015. Using a measure adapted from Sussman and colleagues, participants were asked to select one of 15 peer crowds that they most identified with. Participants also reported ever and past 30-day use of alcohol, marijuana, and tobacco products. Results: Substance use significantly differed by peer crowd. "Partiers" reported high levels of alcohol (83%), cigarette (27%) and e-cigarette (10%) use. The "Emo/Scene" crowd reported high levels of alcohol (88%), cigarettes (27%) and LCC (18%) use. The "Hippie" and "Goth" crowds reported high levels of marijuana (39% and 34%, respectively) and smokeless tobacco (14% and 16%) use. The "Country" crowd reported high levels of cigarette (23%) and smokeless tobacco (12%) use. "Skaters," (12%) "Hip-Hop," "Hipsters," and "Partiers" (10% each) reported high levels of e-cigarette use. The "Young Professionals," "Preppies," "Homebodies," "Activists" and "Religious" crowds reported low levels of substance use. Conclusions: This is the first nationally representative study to demonstrate that substance use differs across young adult peer crowds. Because peer crowds vary on important norms, lifestyles and preferences (e.g., values, preferred media/entertainers, activities), they offer ways to target prevention and cessation interventions to high-risk crowds. This study's findings will help inform such efforts.

Board 6

The Use of SBIRT in Primary and Emergency Care Settings Improves Substance Use Risk Behavior in Patients

Kinzler NR, Borders MR, Augspurger E, Taylor K, Wilson JF, Starr S

Purpose: Considerable evidence demonstrates that Screening, Brief Intervention, and Referral to Treatment (SBIRT) is an effective practice in reducing substance use by at-risk users and in identifying individuals who need more extensive specialized treatment (Babor et al., 1996, 2007). SBIRT utilizes a public health approach to universal screening aimed at providing early intervention to at-risk users. In response to high rates of substance use and a treatment gap in their state (NSDUH, 2012), the Ohio Department of Mental Health and Addiction Services (OhioMHAS) launched a statewide SBIRT initiative aimed at reducing morbidity and mortality caused by substance use. Method: Seven primary care organizations in Ohio (health centers, hospitals, and emergency departments) received funding to implement SBIRT. All adult patients received a prescreen to rule out low/no-risk use. Patients with a positive prescreen were administered the respective full screen(s): AUDIT, DAST-10, and PHQ-9. Based on full screening score, three types of interventions were provided: feedback only (low risk), brief intervention (moderate risk), and referral to treatment (high risk). Outcomes measures were collected for positive patients (moderate to high risk) at baseline and 6-month follow-up using SAMHSA's GPRATool. Results: Ohio SBIRT has screened 36,994 patients: 84.6% received feedback only, 10.1% received a brief intervention, and 5.3% received a referral to more extensive treatment. Paired samples

t-tests indicated significant reductions in 30 day alcohol and illegal drug use ($p < .001$), reductions in depression ($p < .05$), and improvements in self-reported health ($p = .002$) for positive patients from baseline to follow-up. The greatest reductions in substance use were from the highest risk treatment patients ($p = .034$). Conclusion: Ohio SBIRT has successfully aided primary care agencies in the integration of SBIRT approaches into their existing medical and behavioral health services, resulting in a sustainable program effective at reducing substance use and improving the health of patients.

Board 7

Adolescents' Beliefs about Nicotine: Findings from a Qualitative Study

Coleman BN, Johnson SE, Tessman GK

Purpose: Nicotine exposure during adolescence can cause addiction, may harm brain development, and could lead to sustained tobacco product use (USDHHS, 2014). The recent proliferation and increasing use of electronic nicotine delivery systems (ENDS), such as e-cigarettes, present a novel way for youth to be exposed to nicotine. The complex marketplace makes it increasingly important to understand what youth know and believe about nicotine. Methods: Four focus groups were conducted ($N=32$) from October to November 2014 in Columbus, Ohio with adolescents aged 16-17 to explore their knowledge, perceptions, and beliefs surrounding nicotine. Groups were segmented by gender and smoking status. A semi-structured moderator guide was used to probe adolescents' beliefs about nicotine, including where it comes from and what effects it has. Focus group sessions were audio-recorded and the data transcribed and analyzed using a thematic approach. Results: Youth in this study described their own uncertainty about nicotine and had difficulty disentangling beliefs about nicotine from their broader beliefs about cigarettes. Generally, nicotine was recognized as the chemical that makes cigarettes addictive, and some participants recognized that nicotine is available in other products—such as nicotine replacement therapy and non-cigarette tobacco products (e.g., e-cigarettes). When prompted to discuss the effects of nicotine on the body and brain, there were high levels of uncertainty, particularly about whether negative health effects were caused by nicotine or other chemicals in cigarettes. Several youth described nicotine as a cause of addiction to smoking, but some also cited other causes including the social environment as well as the subjective effects associated with smoking. Conclusions: Communicating to adolescents about the harms of tobacco products is becoming increasingly complex with the growing diversity of nicotine-containing tobacco products. Thus, understanding how adolescents think about nicotine would be useful for effective communication about novel tobacco products, such as ENDS.

Board 8

Tobacco Cessation among American Indian/Alaska Native Individuals: The role of State Quitlines in Providing Tailored Services for this Population

Yuan NP, Schultz J, O'Connor PA, Bell ML

Purpose: Data on tobacco use and cessation remain limited for American Indian and Alaska Native (AI/AN) populations. We examined tobacco use and cessation behaviors among AI/AN individuals seeking telephonic services from the Arizona Smokers' Helpline (ASHLine). Differences in predictors of cessation at 7-month follow-up between AI/AN clients and non-Hispanic, White (NHW) clients were investigated. Methods: Between 2011 and 2016, self-report data on demographics and tobacco use and related behaviors were obtained at enrollment. Thirty-day tobacco cessation was assessed at 7-month follow-up. Logistic regression was used to investigate predictors of cessation for AI/AN and NHW clients in separate models. Differences in predictors of cessation between AI/AN and NHW were investigated using interactions with race/ethnicity and each predictor. Results: Out of 34,810 individuals who enrolled, 13,794 had 7-month data. There was no difference in retention between AI/AN ($297/797=37.3\%$) and NHW clients ($13497/34013=39.7\%$; $p=0.17$). There was no significant difference

in 30-day cessation between AI/AN clients (38.0%) and NHW clients (38.7%; $p=0.33$). Amongst AI/AN clients, tobacco cessation was associated with medication use and another smoker in the home. Amongst NHW clients, male gender, age, medication use and home smoking bans were associated with higher cessation rates; younger age of onset, having a chronic condition, Fagerstrom score and another smoker in the home were negatively associated with cessation. The only predictor that significantly differed between groups was having another smoker in the home ($p=0.02$). For AI/AN and NHW clients, the odds ratios from stratified models were 0.38 (95%CI: 0.18, 0.79, $p=0.009$) and 0.90 (95% CI: 0.82, 0.99, $p=0.04$), respectively. Conclusions: Quitlines play an important role in promoting tobacco cessation among AI/AN people, especially in states with higher proportions of AI/AN residents. Special attention may be directed towards understanding the role of other smokers in the home and related socio-cultural influences for this population.

Board 9

Adolescent Perceptions and Experiences Regarding Electronic Nicotine Delivery Systems (ENDS): Recommendations for Intervention Development

Will KE, Mondejar KA, Paulson AC, Herman MC

Background: Electronic nicotine delivery systems (ENDS; also known as e-cigarettes or vapes), are relatively new to the market, are not well understood, and are often marketed as a “safer” alternative to traditional combustible cigarettes. Adolescent uptake is rising, prompting concerns about the health effects and long-term consequences of using these products. Method: Three focus groups were conducted with teens ($N=31$) in Virginia to investigate youth experiences with and perspectives on ENDS to inform development of risk-communication approaches for teens. Participants included both genders (52% male), ranged in age from 12 to 19 years old ($M = 14.5$ years), and were representative of the community (61% white; 29% black; and 10% other/mixed race). Teens did not have to use ENDS to participate. Results: Results indicate that teens have a number of troubling beliefs about ENDS, including that they emit harmless water vapor, do not contain nicotine, are less addictive, and are much healthier than traditional cigarettes. Further, teens perceive vaping as trendy and normative in their environments, even on school grounds. Adolescent exposure to ENDS information originates entirely from peer groups, online media, and claims made by marketers/sellers. Perceived reasons for ENDS use focused on beliefs that they are relatively harmless and not addictive, to reduce stress, and to fit in or look cool. Paradoxically, traditional combustible cigarettes were perceived as uncool, unhealthy, and a way to lose friends. Teen-generated suggestions for combatting the ENDS trend included (a) providing education, specifically regarding chemicals present in the aerosol inhaled; (b) making use seem uncool, perhaps by enlisting celebrity anti-vapers in the cause; (c) banning flavors; and (d) increasing cost and reducing availability. Conclusions: Teens harbor many misconceptions about ENDS and accept marketers’ unsupported claims of safety in the absence of counter marketing. Additional intervention efforts are needed to discourage teen use.

Board 10

Examining Tobacco Smoke Exposure-Related Illnesses in Pediatric Emergency Department Patients

Merianos AL, Dixon CA, Mahabee-Gittens EM

Purpose: Smoking and tobacco smoke exposure (TSE) are together the most preventable cause of death nationwide. Pediatric emergency departments (PEDs) may be an opportune, yet underused venue to decrease TSE-related illnesses among children. Identifying populations at risk can assist in developing tobacco interventions for caregivers. The purpose of this study was to determine the relationship between TSE-related illnesses and patients presenting to the PED. Methods: A retrospective review of electronic medical records of 0-18 year old patients ($n=116,084$) who presented

to the PED at a Level 1 pediatric trauma center was conducted. Sociodemographic characteristics and TSE-related illnesses were extracted from records. Caregiver tobacco use was also extracted and patients with a “yes” response were defined as having a positive TSE status and those with a “no” response were defined as having a negative TSE status. Two multivariable logistic regression models were conducted to assess patient differences based on TSE-related illnesses among all patients and patients who had a positive TSE status. Results: More than one-fifth (21.7%) of patients had TSE-related illnesses. Patients who were younger, male, non-white, Hispanic; had Medicaid/Medicare insurance, low triage acuity (low risk for clinical deterioration); were admitted to the hospital were significantly more likely to have TSE-related illnesses (all $p < .05$). Twenty-eight percent of PED patients with TSE documentation had positive TSE status. Though regression models for positive TSE indicated similar findings (all $p < .05$), no difference was found based on ethnicity. Conclusions: TSE-related illness rates among children presenting to the PED are high and certain populations are most at risk for TSE-related illnesses. PEDs, especially those that care for large numbers of children, should offer tobacco interventions, targeting at risk populations and caregivers most likely not receiving interventions in other healthcare settings.

Board 11

Does Smoking Affect Treatment Allocation and Outcomes in Patients with Rotator Cuff Tears

Robbins CB, Landfair GL, Gagnier JJ, Bedi A, Carpenter JE, Miller BS

Objectives: The objectives of this study were (1) to assess the influence of smoking status on treatment allocation (surgical versus non-surgical management) and (2) to compare the functional outcomes of surgical and non-surgical treatment of rotator cuff tears between smokers and non-smokers. Methods: A prospective cohort study included 196 subjects with full-thickness rotator cuff tears who were followed prospectively for one year. The Western Ontario Rotator Cuff Index (WORC), American Shoulder and Elbow Surgeons (ASES) score, and pain scores were collected six times from baseline through one year. Multivariate logistic regression was used to determine predictors of treatment allocation. Mixed-effects repeated measures regression models were used to assess the effect of smoking on outcomes after surgical and non-surgical management. Results: The non-smoking group was older than the smoking group (61.4 years vs. 54.2, $p=0.0004$). There was no significant difference between smoking status and patients who were obese, had diabetes, had rotator cuff symptoms longer than a year, had a large RCT, or workers' compensation. Smoking status was not significantly associated with treatment allocation ($OR=0.85$, $p=0.762$). Subjects who smoked reported lower baseline adjusted WORC scores (40.9 vs. 54.5, $p=0.0008$), lower ASES scores (43.0 vs. 59.9, $p=0.0001$), and worse pain scores (59.5 vs. 42.9, $p=0.0001$). Within the non-surgical group smokers reported significantly lower WORC scores (38.0 vs. 56.8, $p=0.0127$), lower ASES scores (39.2 vs. 61.6, $p=0.0872$), and worse pain (61.9 vs. 42.1, $p=0.0176$). Surgical patients who smoked reported significantly lower WORC scores (31.1 vs. 40.4, $p=0.0352$), lower ASES scores (37.7 vs. 50.0, $p=0.0143$), and worse pain scores (63.2 vs. 51.5, $p=0.0408$). Conclusion: Subjects who smoked reported worse pain and function scores at baseline and follow-up, regardless of treatment allocation. The disparity in function and pain in smokers was less pronounced in those who underwent surgery than those who received non-surgical management.

Board 12

Authoritative Parenting Behaviors and Marijuana Use among Hispanic Adolescents: Findings from a National Study

Merianos AL, King KA, Vidourek RA, Wood K

Purpose: Marijuana remains the most commonly used illicit drug among Hispanic adolescents. The purpose of this study was to determine the influence authoritative parenting behaviors have on lifetime,

past year, and past month marijuana use among Hispanic adolescents. We also examined this relationship by developmental age. Methods: A secondary data analysis of the 2013 National Survey on Drug Use and Health was conducted. Participants included a nationally representative sample of 3,457 Hispanic adolescents who were 12-17 years old. We performed logistic regression analyses to examine whether lifetime, past year, or past month marijuana use differed based on seven authoritative parenting behaviors (i.e., checked if homework was done; helped with homework; told youth to do chores around the house; limited amount of television watched; limited amount of time spent out on school nights; told youth they did a good job; and told youth they were proud of them). We conducted follow-up logistic regression analyses to examine whether these behaviors influenced marijuana use by age. Results: Results indicated that 19.5% Hispanic participants reported lifetime marijuana use, 14.5% reported past year use, and 7.5% reported past month use. Lifetime, past year, and past month use significantly differed based on authoritative parenting behaviors. Hispanic adolescents at increased risk of marijuana use were those with parents who never/seldom performed authoritative parenting behaviors (all $p < .03$) compared to those with parents who always/sometimes performed these behaviors. While results indicated that authoritative parenting behaviors had a statistically significant effect against marijuana use, the protective effect was highest for 12-13 year olds, followed by 14-15 year olds and then 16-17 year olds. Conclusions: Professionals should consider these findings when developing substance use prevention programming for Hispanic adolescents. Parents should be included in prevention efforts and educated on how to perform authoritative parenting behaviors.

Board 13

Defining and Measuring Family Structure with Adolescent Risk Behaviors: A Systematic Review

Sendowski VM, Maness SB

Purpose: Family structure has been found to be associated with many youth risk behaviors such as sexual risk taking, substance abuse, and delinquency. However, family structure is inconsistently defined as a construct and is not always static. This review evaluated how family structure is conceptualized, defined, and measured in the literature on youth risk behaviors. Methods: A literature search of electronic databases CINAHL, PsycInfo, and PubMed was conducted in June of 2016 to identify studies published between January 2006 and June 2016, meeting all inclusion criteria. The Preferred Reporting Items for Systematic Reviews methodology was applied throughout the review process. Results: A review of 53 studies found considerable variation in the definition and measurement of this construct. The domains of family structure most commonly assessed for adolescents were: intact or non-intact (two parent biological or adoptive, nuclear, traditional), transitions or changes, marital status (married, single, cohabitating), head of household gender (in non-nuclear families). Less common domains include other related or unrelated members of household in which the adolescent lives. Discussion: Although family structure is multidimensional, the extent to which family structure is measured is limited. Family structure as used with youth risk behavior overwhelming describes the stability and nature of parental relationships. Analysis commonly involves dummy coding, using two biological/adoptive parents as the reference category. Family structure was generally assessed for the current household, but some studies assessed family structure longitudinally or for multiple timepoints. The present study provides a framework for considering how family structure is defined and utilized for different youth risk behaviors and implications for future research.

Board 14

Medical Marijuana Legalization and Associated Illicit Drug Use and Prescription Drug Misuse Among Adolescents in the U.S.

Wong SW, Lin HC

Objective: Substance abuse among adolescents has been a major public health issue in the U.S. As marijuana use has been considered a gateway to other illicit drug uses, this study examined the associations of state-level medical marijuana law (MML) implementation and illicit drug use and misuse of prescription medications among adolescents, using propensity-score matching to minimize selection bias from systematic differences between states with and without MML. Method: This was a retrospective two-year cross-sectional study. Adolescents aged 12-17 years in the 2013-2014 National Survey on Drug Use and Health were extracted. This study matched subjects using one-to-one nearest-neighbor matching based on their sociodemographic characteristics and marijuana use status. Seven weighted logistic regressions were conducted to examine the associations between MML and four types of illicit drug (cocaine, heroin, hallucinogens, and inhalants) use and three types of prescription drug (pain reliever, tranquilizer/sedative, and stimulant) misuse. Sociodemographic factors and marijuana use were controlled in logistic regressions. Results: A total of weighted 22,270,305 matched adolescents were included in this study. Results from logistic regressions revealed that adolescents who lived in the states that had legalized medical marijuana had a higher likelihood of using “hard” illicit drugs such as cocaine and heroin in the past 12 months (OR=1.63, 2.61, respectively; both p 's<.05) but not hallucinogens, inhalants, and prescription drugs. Conclusions: This study suggests that for the states which have legalized medical marijuana, drug prevention policies and educational interventions to adolescent should be implemented not only directly on the use of marijuana, but also on the “hard” illicit drugs such as cocaine and heroin. And the states that have not legalized medical marijuana should take into account the possible effect of MML on use of other illicit drugs when making the law.

Board 15

Exploring Adolescent Perspectives on Nicotine Replacement Therapy for Smoking Cessation: A Qualitative Study

King JL, Merten JW, Young ME, Pomeranz JL

Significance: Each day within the United States, 2,100 adolescents become daily cigarette smokers. Many of these young people will continue to smoke for decades, in part due to lack of best practice for cessation among this population. Nicotine replacement therapy (NRT) is widely recommended for adults, yet efficacy studies show limited success among adolescents. This study aimed to explore adolescent smokers' beliefs and interest in NRT for smoking cessation. Methods: Eleven 18-19 year olds who smoked while in high school completed semi-structured, one-on-one, qualitative interviews in Florida in 2016. The interview guide contained probes related to smoking initiation, smoking likes and dislikes, past quit attempts, barriers to quitting, healthcare provider input, and electronic cigarettes for cessation. Adolescents were asked to reflect and respond based on their high school experiences. Interviews were recorded digitally, transcribed verbatim, and coded and analyzed using the constant comparative method. Results: Ten participants were White (90.9%), four were Hispanic (36.3%), one was Black (9.1%), and five were male (45.5%). Qualitative results centered on three categories: smoking background, general cessation strategies, and NRT preferences. Most factors related to NRT use were individual preferences such as familiarity or concern about side effects, with some external factors, including access. Novel factors identified within this study include importance of NRT being discrete, familiar, and usable. This sample did not feel NRT in its current forms was applicable for adolescent smoking cessation. However, adolescents interviewed did offer suggestions for improvements and alternative cessation strategies. Conclusions: Adolescent smokers remain a priority target for cessation interventions. NRT was not applicable for this sample. These data can be used to tailor future adolescent cessation approaches.

Board 16

Child and Adolescent Mental Disorders and Health Care Disparities: Results from the National Survey of Children's Health, 2011-2012

Lu W

Background: Mental disorders have severe impact on children's health and well-being and can lead to academic failure, violence, substance use, and other risk-taking behaviors for some children. Most seriously, the interplay of mental disorders and other factors (e.g., social strains) can lead to suicide, which was the second leading cause of death for U.S. children aged 10-19 years in 2014. Purpose: This study aimed to 1) provide the epidemiology of mental disorders among U.S. children, and 2) examine disparities in their mental health service use. Methods: Parents of children aged two to 17 years (N=85,637) participated in the 2011-2012 National Survey of Children's Health and were asked whether their children currently had any mental health conditions, such as ADHD, depression, and anxiety. Mental health service use was assessed by asking parents whether or not, during the past 12 months, their child had received any treatment or counseling. Pearson's χ^2 test and multivariable logistic regression analysis were conducted. Results: Based on parents' report, 14.8% of children had one or more disorders at the time of the survey. ADD or ADHD was the most prevalent mental disorder (7.9%), followed by speech/language problems (4.8%), developmental delay (3.6%), anxiety (5.1%.3%), and behavior/conduct problems (3.2%). Tourette syndrome was the least prevalent disorder (0.2%). Overall, 7,819 children were reported to need mental health care, among which 61% received services from a mental health professional. Compared with Whites (68.1%), Hispanic (53.8%, $p<.01$) and Black children (44.9%, $p<.001$) were less likely to be reported to have received services. Children covered by public insurance (e.g., Medicaid or CHIP) had greater odds of service use than those without insurance (59.2% vs. 41.9%, $p<.05$). Conclusion: The prevalence of mental disorders remains high, and sustained efforts are needed to reduce the persisting disparities in mental health service use among children and adolescents.

Board 17

Socioecological Factors, Children's Flourishing and Associated Physical and Mental Health Status

Kim T, Lin HC, Seo DC

Objective: "Flourishing" is a new expression of happiness and well-being, which is more proactive and comprehensive willingness of achieving one's quality of life. Flourishing may promote and improve children's health and well-being both emotionally and physically in their later life. The objectives of this study were to examine: 1) the relationship between children's flourishing and socioecological factors at individual, family, and environment levels; and 2) how children's flourishing is associated with children's overweight and mental health status. Methods: A total of 45,309 children and adolescents were drawn from the 2011-2012 National Survey of Children's Health (mean age=13.6 years). Two OLS regressions were performed to examine the association of socioecological variables with flourishing and depression. A logistic regression was performed to examine how children's flourishing was associated with their overweight status while socioecological factors, gender and race/ethnicity were controlled. Results: Children's individual characteristics, parent's capacities, family functions, and environmental factors were associated with children's flourishing (all $ps<.05$). Female children who showed a high level of flourishing were less likely to be overweight ($p<.05$). Children's depression was negatively associated with their level of flourishing ($p<.05$). Conclusion: Multilevel socioecological factors appear to be associated with children's flourishing and their physical and mental health. Parent-involved children's physical activities and family and social support are crucial in children's flourishing. Children's flourishing favorably influences their weight and mental health status. Efforts to improve children's flourishing may help them maintain healthy weight and sound mental health.

Board 18

Self-Perceptions and Factors Associated with Being ‘Put Down’ at School among Middle and High School Students

Browman A, Orpinas P, Barry A, Rossheim ME, Wilson KL, McKyer ELJ, Smith M

Background. Approximately 50% of youth report being bullied and 10% report being bullied regularly. While the ramifications of bullying are well studied, less is known about adolescents’ self-perceptions relative to their bullying experiences. Objective. This study identified: (1) the prevalence of bullying activity among a sample of middle and high school students; (2) positive and negative descriptors used by these students to self-identify; and (3) intrapersonal and normative factors associated with being “put down” by others at school. Methods. Data were analyzed from 1,027 middle and high school students who completed the Adolescent Health Risk Behavior Survey. Bivariate analyses compared sample characteristics by sex and grade level. A binary logistic regression model using backwards entry was fitted to identify intrapersonal and normative factors associated with being “put down” by others at school. Results. Over 16% of participants reported being put down by others at school. Students who identified more with the negative words confused, unattractive, dull, and careless reported being put down at school ($P<0.05$). Students who identified less with the positive words popular, smart, considerate, cool, and self-confident also reported being put down at school ($P<0.01$). In multivariate analyses, high school students were less likely to report being put down at school, relative to middle school students ($OR=0.61$, $P=0.015$). As students scored higher on the Negative Self-Description Scale, their odds of being put down significantly increased ($OR=1.13$, $P<0.001$). Conversely, as students scored higher on the Positive Self-Description Scale, their odds of being put down significantly decreased ($OR=0.84$, $P<0.001$). Students who perceived larger proportions of their friends drank alcohol regularly were less likely to report being put down at school ($OR=0.81$, $P=0.049$). Conclusion. Findings suggest that school- and community-based interventions should begin early and include strategies to enhance adolescents’ self-perceptions for the purposes of raising self-awareness and forming healthy/positive identities.

Board 19

Perceived Personal and Environmental Resources Mediate the Relationship between Positivity and Emotional Dysfunction in Adolescent Females

Lehrer MH, Janus KC, Gloria CT, Steinhardt MA

Purpose: Females experience a decline in emotional functioning (e.g. increased depressive symptoms and perceived stress) during adolescence. Fredrickson’s Broaden-and-Build Theory hypothesizes that positivity – the ratio of one’s experienced positive to negative emotions – broadens one’s attention and thinking and promotes a trajectory of growth that over time builds personal and environmental resources. Positivity is thus posited to promote emotional functioning through increased perception of personal and environmental resources. Adult research offers support for this mediation model, but it has not been examined in adolescents. This study investigated the relationship between positivity, perceived personal and environmental resources, and emotional dysfunction in adolescent girls. It was hypothesized that perceived resources would mediate the relationship between positivity and emotional dysfunction. Methods: Participants ($n = 510$) attending an all-girls public school completed a survey assessing emotional dysfunction (depressive symptoms and perceived stress), positive and negative emotions, and personal and environmental resources (resilience, hope, adaptive coping, community connectedness, social support, and school connectedness). The six perceived resources were combined into one latent variable, and structural equation modeling tested the mediating effect of perceived resources on the relationship between positivity and emotional dysfunction. Results: The mediation model accounted for 63% of the variance in emotional dysfunction. Positivity exerted a significant direct effect on emotional dysfunction ($\beta = -.16$, $p < .01$), but its influence was primarily

mediated through perceived resources (indirect effect: $\beta = -.43$, $p < .001$). Conclusions: The impact of positivity on emotional dysfunction is primarily but not entirely mediated by perceived personal and environmental resources. Schools should consider strategies to enhance experiences of positive emotions and/or decrease experiences of negative emotions, in conjunction with encouraging student awareness of both personal and environmental resources.

Board 20

Chronic Disease, Social Support, and Mental Health among Older Women Residing in Barbados: Results from the Survey on Health, Well-being, and Aging Study

Harvey IS, Sherman LD, Spears EC, Mkuu RS, Johnson K

Introduction: Recent evidence suggests interrelationships between depression and chronic diseases. The comorbidity of type 2 diabetes and arthritis is a major problem compromising the health of aging women and has not been examined among older Caribbean women. The objectives of this study were to (1) investigate how social support effects older women's depressive symptomology with arthritis or type 2 diabetes, and (2) explore how social networks improve self-management behaviors among aging women residing in Barbados. Methods: The sample included 614 women (mean age = 72.9 years, SD = 8.2 years) diagnosed with type-2 diabetes or arthritis who participated in the Survey on Health, Well-being and Aging in Latin America and the Caribbean survey. Descriptive statistics, bivariate and multivariate logistic regression analyses were performed to evaluate the measures on informal support and depressive symptoms across various self-management practices. Results: Women receiving assistance from children ($p < 0.001$) and living with extended family ($p < 0.001$), reported low prevalence of depressive symptoms. Individuals diagnosed with arthritis ($p = 0.020$) were more likely than individuals diagnosed with type 2 diabetes ($p = .10$) to report depressive symptoms. Individuals living with social network member were more likely manage chronic condition compare to those who live alone. Discussion: In Barbados, networks centered on children and extended family were associated with low frequency of depressive symptoms. Living arrangements in the Caribbean may play an important role in buffering against depression and improving self-management practices. Multivariate investigation among depressive disorders, chronic disease, and social environment can provide valuable insights into public health interventions in the Caribbean.

Board 21

Chronic Disease, Social Support, and Mental Health among Older Women Residing in Barbados: Results from the Survey on Health, Well-being, and Aging Study

Harvey IS, Sherman LD, Spears EC, Mkuu RS, Johnson K

Introduction: Recent evidence suggests interrelationships between depression and chronic diseases. The comorbidity of type 2 diabetes and arthritis is a major problem compromising the health of aging women and has not been examined among older Caribbean women. The objectives of this study were to (1) investigate how social support effects older women's depressive symptomology with arthritis or type 2 diabetes, and (2) explore how social networks improve self-management behaviors among aging women residing in Barbados. Methods: The sample included 614 women (mean age = 72.9 years, SD = 8.2 years) diagnosed with type-2 diabetes or arthritis who participated in the Survey on Health, Well-being and Aging in Latin America and the Caribbean survey. Descriptive statistics, bivariate and multivariate logistic regression analyses were performed to evaluate the measures on informal support and depressive symptoms across various self-management practices. Results: Women receiving assistance from children ($p < 0.001$) and living with extended family ($p < 0.001$), reported low prevalence of depressive symptoms. Individuals diagnosed with arthritis ($p = 0.020$) were more likely than individuals diagnosed with type 2 diabetes ($p = .10$) to report depressive symptoms. Individuals living with social network member were more likely manage chronic condition compare to those who live alone. Discussion: In Barbados, networks centered on children and extended family were associated with low frequency of depressive symptoms. Living arrangements in the Caribbean may play an important role in buffering against depression and improving self-management practices.

Multivariate investigation among depressive disorders, chronic disease, and social environment can provide valuable insights into public health interventions in the Caribbean.

Board 22

Factors Associated with Tobacco Use among Rural and Urban Pregnant Women

Katirai WJ, Noland M

Purpose: The purpose of this study is to investigate the influences of smoking on rural and urban pregnant women. Knowledge of the adverse effects of smoking on health and subscores from the Health Belief Model (HBM) will be explored in relation to the smoking behavior of pregnant women. A secondary purpose is to investigate the accuracy of self-reported smoking behavior during pregnancy using biochemical validation. **Methods:** The study population included 71 women receiving pre-natal care at clinics in rural and urban Kentucky. The number of participants were limited by the high-cost of biochemical verification. All participants completed a questionnaire and supplied a saliva sample. The questionnaire consisted of 60 items that included questions about the pregnant woman, her knowledge of the health risks of smoking during pregnancy, the HBM theoretical constructs and demographic questions. Chi-square, t-tests and logistic regression were used to test for statistical significance. **Results:** Thirty-seven participants (52%) were classified as non-smokers and 34 (48%) participants were classified as smokers. Non-smokers had a significantly larger mean knowledge score ($P < .05$) about the health risks of smoking during pregnancy. According to the HBM constructs, smokers showed a much higher mean score ($p < .001$) indicating that they felt less susceptible to the harms of smoking during pregnancy. Using a logistic regression model, barriers was the only HBM construct that predicted smoking behavior ($P < .05$). The overall smoking deception rate was 5.6%. **Conclusions:** Smoking during pregnancy continues to be a significant issue for the women in this sample from urban and rural Kentucky. Efforts to educate women about the health risks of smoking during pregnancy should be increased, as pregnancy is a time when women have more frequent contact with a healthcare provider. The HBM could play an important role in assessing the barriers that pregnant smokers are facing.

Board 23

The Role of Telehealth Counseling in Alleviating Barriers to Reception of Mental Health Services in Mental Health Professional Shortage Areas in Rural Texas

Primm KM, McCord C, Garney W, Garcia K

Purpose: Rural areas lack adequate access to mental health services, and evidence suggests that roughly one in four individuals living in rural areas suffer from mental illness or substance abuse problems. Access to mental health services in rural areas is hindered by higher rates of poverty, inadequate housing and transportation, and lower rates of insurance. Telepsychology can be used to increase access to mental health services and decrease these health disparities. **Methods:** In 2007, the Telehealth Counseling Clinic (TCC), located at the Texas A&M Health Science Center, developed a training model to prepare future psychologists to utilize new technology to provide counseling services to underserved individuals living in Mental Health Professional Shortage Areas in Texas. In 2009, the TCC opened its first remote site in a rural community to deliver telehealth counseling. From 2012-2014, TCC expanded its services and opened four additional sites in other rural communities. **Results:** TCC uses doctoral students in psychology, supervised by licensed staff, to provide mental health counseling via teleconference to clients in five counties in Brazos Valley region of Texas, allowing clients to receive counseling services at a local community health center or in the privacy of their home. Teleconferencing is achieved via a HIPPA approved videoconference technology. To date, the TCC has served approximately 600 clients and provided over 5,000 counseling sessions. **Discussion:** Telepsychology is one innovation that has been utilized by the TCC as a method to reduce rural health

disparities and increase access to mental health services in rural areas. Despite this, rural residents with mental illness might be less likely than their urban counterparts to define themselves as needing care. Thus, use of models similar to that of TCC can be applied in rural settings to expand access to care, but additional mental health awareness campaigns are needed.

Board 24

Applying the Theory of Reasoned Action to Predict the Sleep Outcomes of Employed Adults

Knowlden AP

Background. Inadequate sleep is a public health epidemic. Insufficient sleep is associated with an increased risk for occupational injuries. Sleep loss impairs psychomotor vigilance and neurocognitive performance. Degradation of cognitive functioning due to inadequate sleep also increases risk of work-based fatalities. Employees with inadequate sleep are more likely to report absenteeism, unintentional sleep during work hours, as well as work-related accidents. The purpose of this research was to develop a theory of planned behavior model to predict the sleep behaviors of working adults. Methods. The model tested the efficacy of the theory of planned behavior constructs of attitude towards the behavior, subjective norms, perceived behavioral control, and behavioral intentions for predicting sufficient sleep behavior. A total of 300 employed adults were sampled from the Southeastern region of the United States. The final model was tested against a priori goodness-of-fit indices of χ^2 value of $p > .05$, GFI $> .90$, RMSEA < 0.05 , and NFI > 0.90 . Results. The mean hours of sleep of the sample was 6.69 hours (SD=1.15). Among the sample, 44.7% self-reported falling asleep at least once while working in the past 30 days. Sleep behavior was significantly related to falling asleep while working ($p < 0.05$). Path analysis suggested the construct of perceived behavioral control and attitude accounted for 37.7% of the variance in behavioral intentions ($p < 0.001$), while subjective norms was not significant in predicting behavioral intentions ($p = 0.179$). Concurrently, behavioral intentions and perceived behavioral control accounted for 49.2% of the variance in sleep behavior. Conclusions. A significant portion of the sample received less than 7 hours of sleep, which is correlated to increased risk of falling asleep while working. The TPB is a robust model which can be used to develop interventions for improving sleep of employees, thereby reducing risk of sleep-related occupational injuries.

Board 25

Religiosity and Sexual Behavior in an Adolescent Population

Young M, Cardenas S, Donnelly J, Kittleson M, Penhollow T

Purpose: The purpose of the study was to examine the relationship between religiosity and sexual behavior in an adolescent population. Methods: Participants in the study were 98 male and 89 female adolescents from six New Mexico communities. Participants completed a questionnaire that included demographic items, two measures of religiosity (frequency of worship attendance and degree of religious feeling) and six measures of sexual behavior. Since participant ages ranged from 13-17 it seemed that age might be the variable most likely to distinguish between those who had participated in a given behavior and those who had not participated. Thus, we analyzed the data using logistic regression, controlled for age and asked the question, do the religiosity measures make a unique contribution to distinguishing between those who had and those who had not participated in a given behavior. Results: Age, by itself, was statistically significant in distinguishing between participants and non-participants for all six behaviors among both males and females. When the two religiosity variables were added to the analyses there were substantial increases in the RSq value for all six behaviors for both males (34.1 percentage points) and females (19.5 percentage points). For the 12 analyses the RSq value when the religiosity variables were included was always over .400, the lowest value being .412; eight of the values were above .500, with the highest values at .612 and .740. Thus, these seem to be substantial values indicating the ability of the predictor variables to successfully distinguish between

those who have and who have not experienced the various behaviors. Conclusions – The two religiosity variables made substantial increases in the ability of age alone to account for differences in adolescents' sexual behavior. These findings may be of value to those working in adolescent sexuality education programming.

Board 26

Why are Women Dissatisfied with Different Contraceptive Methods? Findings from the National Survey of Family Growth, 2011-2013

Thompson EL, Vamos CA, Griner SB, Daley EM

Background: Approximately 45% of pregnancies in the U.S. are unintended. A variety of contraceptive methods are available to women to assist in planning and spacing pregnancies. Yet, it is likely that women do not use the same method throughout childbearing years, especially since most methods are reversible. Therefore, there is a need to examine recent rates of contraception discontinuation and dissatisfaction among U.S. women. The purpose of this study was to describe the types of contraceptive methods used and discontinued due to dissatisfaction among U.S. females 15-to-44 years. In addition, the main reasons for dissatisfaction for the pill, condom, IUD, and Depo-Provera were assessed. Methods: Data from National Survey of Family Growth (2011-2013) were examined among females, 15-to-44 years (n=5,601). Survey-weighted frequencies described demographics, contraceptive methods used and discontinued due to dissatisfaction, and reasons for dissatisfaction. The number of methods used and discontinued were averaged among contraceptive users. Results: Among this nationally representative sample, 90.0% of women had ever used any type of contraceptive method, and 46.8% had discontinued at least one method due to dissatisfaction. The most common reversible contraceptive method ever used was a condom (92.7%), while 7.6% of these women discontinued use due to dissatisfaction. The average number of reversible methods used was 2.99 (95%CI 3.25-3.40), while the average number of methods discontinued was 1.53 (95%CI 1.48-1.59). Additionally, side effects were reported as the main reason for dissatisfaction among users of the pill, Depo, and IUD, while partner dissatisfaction was the primary reason for discontinuing condoms. Conclusion: Women tend to change contraceptive methods through their lifetime, and reasons for dissatisfaction can vary by methods. Healthcare providers should consider the personalized reasons for dissatisfaction with contraceptive methods in order to assist women in choosing the best contraceptive method for their needs and preferences.

Board 27

Results from a Pilot Mindfulness-Based Relapse Prevention Intervention among those in Recovery from Opioid Use Disorder Receiving Medication-Assisted Treatment

Zullig KJ, Lander LR, Sloan S, Brumage MR, Hobbs GR, Faulkenberry L

Purpose: Despite evidence of the efficacy of mindfulness as an evidence-based adjunctive treatment for substance use disorders, little research has tested the effectiveness of Mindfulness-Based Relapse Prevention (MBRP) in a naturalistic outpatient setting for those in recovery from opioid use disorder receiving medication-assisted treatment (MAT). Methods: Participants were recruited from West Virginia University's Comprehensive Opioid Addiction Treatment program to participate in a MBRP intervention who were in the intermediate stage of recovery from opioid abuse (at least 90 consecutive days clean). In this single group design pilot study, participants served as their own controls [i.e., each participant participated in 8 weeks of Treatment as Usual (TAU) with MAT before the 8-week MBRP began]. Preliminary pre/post data analysis utilizing intent-to-treat analysis with study non-completers (i.e., participants who did not complete the mindfulness intervention, but remained in treatment as usual, TAU) was performed. Results: Thirty-two participants were recruited (mean age, 36; range 21-47). No significant differences in relationship status ($p=.76$), sex ($p=.43$), education level ($p=.38$),

insurance status ($p=.24$), or employment status ($p=.10$) were detected at baseline between the completers ($n=5$) and non-completers ($n=17$). Analyses suggest significant reductions ($p<.05$) were observed in reported depression when compared to those in TAU. In addition, significant increases were observed in reported mindfulness ($p<.05$) when compared to those in TAU. Trends in the hypothesized direction were also observed for anxiety ($p=.17$), but no changes were observed for craving ($p=.43$). Conclusions: The study design led to significant attrition. Despite this limitation, the research team successfully demonstrated MBRP can be incorporated into a MAT in an outpatient setting, and significant, positive findings were observed even with a small sample size. In addition, an unexpected finding was that patients in the intermediate phase of MAT still reported clinically significant levels of anxiety and depression that were not reduced in TAU.

Board 28

Factors Associated with Quality of Life in Older Adults Living with HIV

Nguyen AL, McNeil CJ, Rhodes SD

Purpose: Quality of life (QOL) is an independent predictor of mortality. For individuals living with HIV, QOL risk factors include depression, neurocognitive deficits, life stress, stigma/discrimination, and physical disabilities. Protective factors include resilience, social support, and positive personal relationships. Purpose in life may be protective for aging-related conditions like dementia. We examined the relationship between QOL and purpose in life in older adults living with HIV. Methods: Cross-sectional analyses of 2013 baseline data of HIV+ individuals ages ≥ 50 ($n=177$) from the community-based cohort of the Rush Alzheimer's Disease Center Minority Aging Research Study. Bivariate analyses and multivariate models examined the relationship between two QOL outcomes (i.e., self-reported health status and healthy days index) and risk/protective factors including purpose in life. Results: Mean age of participants was 58.7 years and mean years since HIV diagnosis was 16.9. The majority of participants were male (74.6%), Black (69.5%), and reported undetectable viral loads (94.9%). Self-reported health status was better for Latinos vs. Whites ($p=0.05$) and nonsmokers vs. ever smokers ($p<0.01$). Self-reported health status was associated with purpose in life ($r=0.21$, $p<0.01$), drug use ($r=-0.16$, $p=0.04$), depression ($r=-0.22$, $p<0.01$), disability ($r=-0.36$, $p<.001$), and emotional loneliness ($r=-0.19$, $p=0.01$). Race, smoking, purpose in life and disability remained significant in a linear regression ($R^2=0.24$). Males vs. non-males ($p=0.04$) and Latinos/Blacks vs. Whites ($p<0.05$) reported more healthy days. Healthy days was associated with depression ($r=-0.42$, $p<.001$), disability ($r=-0.18$, $p<0.01$), adverse life events ($r=-0.22$, $p<0.01$), and emotional loneliness ($r=-0.30$, $p<0.001$). Race, depression, and disability remained significant in a linear regression ($R^2=0.27$). Conclusions: Race, smoking, disabilities, depression, and purpose in life are significantly related to QOL. CD4 count, viral load, and years since HIV diagnosis were not related to QOL indicating the need to focus on reducing disabilities and promoting psychological health in individuals living with HIV as they age.

Board 29

Online Support for Grief Improves Sleep Quality and Reduces Mental Health Problems in Widow/ers

Knowles LM, Stelzer EM, Jovel KS, O'Connor MF

Social support and grief education can ameliorate mental and physical health risks in widow(er)s. However, barriers often prevent older individuals from attending support groups. This controlled pilot study examined the feasibility and acceptability of an online, real-time, interactive virtual reality (VR) support group for widow(er)s, and assessed the preliminary efficacy of the VR support group for improving psychosocial outcomes and sleep quality compared to an active control grief education website. Thirty widow(er)s (Mage = 67.0, SD = 11.0) participated in an 8-week VR support group or

accessed a grief education website. Participants completed self-report measures of depression, grief intensity, grief cognitions, yearning, loneliness, perceived stress and sleep quality at three time points. Participant attrition and self-report indicated that both interventions were feasible and acceptable. Both groups showed significant improvements in grief severity, grief cognitions, yearning, loneliness, perceived stress, and global sleep quality across study time points. However, only widow(er)s in the VR support group showed a significant improvement in depression across time. This study demonstrates the feasibility, acceptability and preliminary efficacy of an accessible and low-cost online support format for widow(er)s.

Board 30

Facilitators and barriers to use of pre-exposure prophylaxis (PrEP) for the prevention of HIV among men who have sex with men in Oklahoma

Hubach R

Purpose: HIV transmission can be significantly reduced through comprehensive community-based prevention programs that include holistic behavioral intervention targeting at-risk groups. The purpose of this study was to identify the preferred context and perceived obstacles to PrEP uptake, and other prevention strategies, for urban and rural MSM in Oklahoma. Secondary aims included identification of methods to enhance patient-provider communication around PrEP and routine HIV screening. Methods: We used a grounded theory design and recruited 25 MSM residing in rural and urban areas in Oklahoma for in-depth qualitative interviews. Utilizing an inductive approach, we explored patterns of sexual relationships, sexual partner-seeking behavior, determinants of sexual risk, attitudes towards PrEP, and facilitators and barriers to PrEP uptake. Results: Structural issues, including lack of comprehensive sexual health education, within the state of Oklahoma were noted. In particular, participants indicated they utilized both social and sexual networking sites (e.g., Facebook, Grindr) as a method to acquire sexual health-related information. Low perception of HIV risk meant few participants saw themselves as PrEP candidates. PrEP emerged as a contentious issue because of a lack of desire to discuss their sexual behavior or sexual orientation with their medical practitioners, fearing rejection from a provider. Specifically, rural participants noted the lack of providers within their areas and numerous barriers to accessing medical specialists within larger metropolitan areas. Many participants viewed PrEP as problematic because they perceived themselves as more willing to engage in condomless sex in an effort to increase sexual pleasure. Conclusions: Geographic isolation limits access to health and social service providers that support sexual health for Oklahoma MSM. Interventions are warranted which increase patient-provider communication regarding sexual health and behaviors. Findings suggest the tailoring or development of behavioral interventions specific to MSM in Oklahoma at the individual and group level, with an emphasis on rural populations.

Board 31

“It’s just like riding a bicycle”: Understanding Women’s Postpartum Sexual Experiences

DiMaria AL, Delay C, Sundstrom B, Rehberg AL, Avina A

Purpose. Women experience many barriers (e.g., psychological, physiological, fatigue, mode of delivery) when resuming sexual behaviors during the postpartum period. Despite extensive clinical and survey literature on the topic, there is limited qualitative research exploring women’s knowledge, attitudes, and decision-making related to the topic. The purpose of this study was to understand women’s reproductive health experiences, with a specific focus on knowledge, attitudes, and norms related to returning to sexual behavior during the postpartum period. Methods. Researchers conducted 69 semi-structured, in-depth oral history interviews with women ages 18 years and older living in the central and lowcountry regions of South Carolina. Interviews lasted approximately 90 minutes and were

conducted by members of an interdisciplinary research team. Data analyses were completed using HyperRESEARCH 3.7.2. Results. Emerging themes included: 1) fatigue; 2) pain/soreness; 3) psychological barriers; 4) libido/desire; 5) pleasure/satisfaction; and 6) following doctor's orders. Regarding the latter, women revealed clinicians were most influential as to when they should and could resume sexual activity. Some women noted returning back to sex earlier than anticipated due to personal and partner desire, and some women even indicated achieving great sexual satisfaction during the postpartum period. Conclusion. Findings from this study provide practical recommendations for health care and public health professionals to further develop effective and timely health messaging related to safe and healthy postpartum sexual behaviors. More specifically, it is recommended that conversations on the topic be initiated prior to the six-week postpartum clinical visit and that campaigns be developed to bring further awareness to, and information on, the topic.

Board 32

Integrating Behavioral Health Treatment with HIV Testing and Aftercare Services: A Preliminary Analysis

Kissell KM, Gaddis R, Williams J, Ford JA

Purpose: Individuals with mental health or substance use disorders (SUD) have reduced access to HIV care and adherence to HIV treatment. The Integrated Continuum-of-Care Services (ICS) project was designed to identify individuals at high risk for SUD, mental illness, or a co-occurring disorder and link them to services including behavioral health treatment, HIV/Hepatitis testing, and aftercare services, in a co-located environment. Methods: HIV testing events were held at local urban housing complexes where individuals could be screened for substance use, mental health disorders, and HIV/Hepatitis C risk factors. Additionally, individuals could be screened and tested at the program's clinical office, the Consumer Advocacy Model. Screened individuals were offered services including: HIV/Hepatitis testing and counseling, SUD and/or mental health treatment, HIV prevention education, group and/or individual counseling, case management, and other recovery support options. The breadth of services utilized was defined by each individual. Outcome measures, including substance use, level of depression and overall satisfaction with life, were obtained from self-reported data at baseline and six-month follow-up. Results: The ICS project has screened and tested 524 individuals. Of those screened, 60% screened positive for needing behavioral health treatment and 50% indicated having risk for HIV and/or Hepatitis C. For those engaging in treatment services or prevention education, paired samples t-tests indicated statistically significant reductions in alcohol and drug use, decreases in depression levels, and an increase in participants' overall satisfaction with their life ($p's < .05$). Conclusions: The ICS program is positively affecting the lives of its participants. Individuals at high risk for SUD, mental health disorders, and/or HIV were linked to a variety of services and demonstrated significant reductions in their substance use and improvements in mental health. In an effort to reach more individuals and add additional services to the program, a syringe exchange program is being added beginning in 2017.

Board 33

Effects of a Teen Pregnancy Prevention Intervention on Youth Living in Group Care Homes: Results of a Cluster Randomized Controlled Trial

Oman RF, Vesely SK, Green J, Clements-Nolle K, Lu M

Purpose: Youth living in group care homes are significantly more likely to initiate sexual intercourse at a young age; less likely to use birth control; and have significantly higher rates of pregnancies and repeat pregnancies compared to national population estimates. This study's purpose was to determine if the Power Through Choices (PTC) intervention reduced unprotected sexual intercourse and pregnancy among system-involved youth living in group care homes. Methods: The PTC intervention consists of ten 90-minute sessions delivered twice per week to groups of 6 to 20 youth. The study design was a

two-arm (PTC intervention or usual care) cluster RCT involving group care homes (n=80) located in 3 states and operated by the child welfare or juvenile justice system. Assessments were conducted via self-administered questionnaires at pre, post and 6 and 12 month follow-up. Logistic regression models, controlling for demographic and relevant baseline variables, were utilized to compare behavioral outcomes at 6 and 12 months Results: Participants (N=1036) were young (mean age=16.1 years), predominantly male (79%), and racially/ethnically-diverse (37% Hispanic, 20% black, 21% white, 17% multiracial). Most youth (88%) reported that they had sexual intercourse and 38% had sex in the past three months. Greater than half (55%) did not use any birth control and 60% did not use a condom at last sexual intercourse. At 6-month post intervention participants in the intervention group had significantly lower odds of having recent sexual intercourse without using birth control (OR=0.72; 95% CI, 0.52-0.98) compared to participants in the control group. At 12-month assessment participants in the intervention group had significantly lower odds of ever being pregnant/getting a female pregnant (OR=0.67; 95% CI, 0.46-0.99). Conclusions: The results suggest that PTC is an effective sexual health education intervention that can be implemented in a group care setting with a sexually experienced multi-racial youth population.

Board 34

Differences in HIV Testing during Primary Care Visits among Patients Seen by Assigned vs. Unassigned Providers

Ford CL, Hechter RC, Luo Y, Cunningham WE, Grotts JF, Takahashi LM, Nyamathi AM

Background: The Centers for Disease Control and Prevention (CDC) recommends adults undergo human immunodeficiency virus (HIV) testing during their regular primary care visits. Patients who have an assigned primary care provider (PCP) may be seen by their assigned provider or another (i.e., unassigned) one, but how this influence HIV testing during the visit is not known. We examine whether patients seen by an unassigned PCP during an index primary care visit have lower odds of HIV testing than those seen by their assigned PCP. Methods: The sample (N=1,627,642) included all adult enrollees of a large managed care organization in southern California who had a primary care visit in 2012. Exclusion criteria were any pregnancy or gap in healthcare coverage in the prior 12 months, and any prior HIV diagnosis. We linked patients' electronic medical records, lab data on HIV antibody assays, and detailed files on each patient's assigned PCP and visit-specific PCP. Using random-effects logistic regression, we estimated the odds of HIV testing during an index primary care visit among patients seen by assigned vs. unassigned PCPs, controlling for patient factors, provider demographics, and facility characteristics. Results: Only 5.3% (n=86,339) of the diverse sample (55.7% female; 40.8% white, 34.2% Latino, 9.9% black, 15.2% other race/ethnicity) underwent HIV testing during the primary care visit. As hypothesized, patients seen by an unassigned PCP had significantly lower odds of visit-specific HIV testing [odds ratio (OR) =0.67, 95% confidence intervals (CI): 0.66-0.69] than those seen by an assigned PCP. Even more pronounced disparities were apparent in analyses among black (OR=0.47, 95% CI: 0.35-0.64) and Latino (OR=0.52, 95% CI: 0.43-0.63) patients. Conclusion: Patients seen by unassigned PCPs had lower odds of HIV testing. The strategies used to promote HIV testing during visits with assigned PCPs may be less effective for patients seeing unassigned PCPs.

Board 35

Transforming Teen Pregnancy Prevention with Innovative Teen Pregnancy Prevention Programs (iTP3)

Muraleetharan D, Garney W, Wilson K, Farmer J, McLeroy K

The purpose of this study is to examine an innovative approach to teen pregnancy prevention (TPP) for populations with the greatest need. Although teen pregnancy rates overall have dropped, rates among certain subpopulations remain elevated. For this reason, personalized methods that go beyond the

traditional, classroom-based interventions are needed. The goal of Innovative Teen Pregnancy Prevention Programs (iTP3) was to select a portfolio of TPP programs that could effectively reach vulnerable populations through new levels of intervention, locations for delivery, or other innovative factors, then provide capacity building assistance (CBA) to advance program through stages of program development. Methods: Evaluators used a collaborative evaluation framework to track performance measures and short-term outcomes related to changes in capacity. A baseline survey and intake interview were used to assess initial capacity to develop an innovative TPP program. Then, an activity reporting database was used to track monthly progress and successes. Results: iTP3 recruited 15 innovators that serve diverse subsets of vulnerable populations including youth that are homeless, LGBTQ-identified, and other priority populations. Most innovators were deemed to have high capacity to implement their proposed program, but will be provided CBA. Innovators created programs for 10 different setting types with the majority of programs operating in out of school time/community-based settings. Innovators conducted target population assessment activities that included working with 58 youth, and organizational community advisory group meetings with 24 adults. Conclusions: To measure effectiveness of the innovative programs, evaluators continue to collect data and report on process and outcome measures. Over the next 10 months, the iTP3 project will work to ensure the creation of a portfolio of progressive TPP programs that personalizes care to vulnerable populations. Additional qualitative and quantitative assessments will be conducted in the future to provide context to the development process of the innovative programs.

Board 36

Differences in HIV Testing Behavior during Primary Care Visits Based on Private vs. Public Insurance Status

Chandanabhumma PP, Ford CL, Tseng CH, Grotts JF, Wilhalme H, Luo YX

Purpose: This study applies the Behavioral Model for Vulnerable Populations to understand whether the type of health insurance a patient has influences the likelihood of receiving CDC-recommended HIV testing during primary care visits among insured patients with assigned healthcare providers. Methods: This was a cross-sectional, multi-level analysis of adult primary care patients with assigned providers in a southern California managed care organization during 2008-2012 period. Our inclusion criteria were ≥ 18 years of age, ≥ 1 primary care visit with an assigned provider, healthcare coverage for the past 12 months, no prior HIV diagnosis, and no pregnancy. Patient electronic medical records were linked with Census and demographic information. Using multivariable, random-effects logistic regression, we examined whether the likelihood of receiving an HIV test during the visit varied based on patient's insurance type, controlling for patient socio-demographic and clinical factors, provider socio-demographic factors, and clinic and neighborhood characteristics. Results: Of the 3,476,755 patients (54.8% female; 38.3% non-Hispanic Whites; 13.1% Spanish-speaking), only 6.12% (n=212,685) received an HIV test during their visit. Adjusted for other co-variables, the odds of receiving an HIV test among patients with Medicaid were about 15% lower than the odds among patients with private insurance [odds ratio (OR) =0.854, 95% confidence intervals (CI): 0.828-0.881]. The adjusted odds of receiving an HIV test among patients with Medicare were 35% lower among patients with Medicare than the odds among patients with private insurance [OR=0.655, 95% CI: 0.631-0.68]. Conclusions: Primary care patients with assigned providers who have Medicare and Medicaid have lower odds of HIV testing than those who have private insurance in this socially diverse managed care population. HIV preventive services offered to primary care patients may differ based on the patient's insurance type. The disparity by Medicaid is concerning as HIV prevalence may be elevated among socially vulnerable populations.

Board 37

Analyzing the Influence of Healthcare Provider Factors on Contraceptive Behaviors among Graduate-Level College Females

Hays CN, Wilson KL, Davis CG, Ji MY, Rahn RN

PURPOSE: The purpose of this study was to analyze the influence of healthcare provider factors on contraceptive behaviors among graduate-level female students in a pilot study. **METHODS:** During the summer of 2014, a random sample of 300 graduate female students received an email to complete an online survey, which examined contraceptive behaviors, attitudes, beliefs, and factors related to healthcare providers' influence on contraception use. In total 68 students completed the survey, for a 22.6% response rate. Data were analyzed using correlations to identify healthcare provider influences on contraceptive behaviors among the participants. **RESULTS:** Participant ages ranged from 22 – 46 years. Approximately 69% of participants had ever been sexually active. Of those, 61.7% engaged in unprotected sex at least once and 42.6% experienced an unintended pregnancy scare. Among all participants, 67.6% discussed contraception use with a healthcare provider. Participants' embarrassment of discussing contraception was positively correlated with actually discussing contraception use with healthcare providers. Additionally, if participants believed their healthcare provider approved of contraception use, they were more likely talk to their healthcare provider about contraception, more likely to use contraception, and less likely to have unprotected sex. **CONCLUSIONS:** Results of this study indicate participants' healthcare providers approve of contraception use. Other studies indicate more educated people are more likely to talk to their healthcare providers. As the participants in this study were graduate students, they were more likely to be older, and were more educated; thus, more likely to talk to their healthcare providers. The full study will include undergraduate students, providing a comparison of friendliness of healthcare providers for undergraduate college-age individuals versus graduate school-age individuals. By understanding contraceptive attitudes, beliefs, and behaviors health practitioners can incorporate females' unique personal characteristics during the process of contraceptive counseling to prescribe the most effective contraceptive method that meets their specific needs.

Board 38

Impact of Self-Concept on Suicidal Behaviors in Youth

Bartsch LA, King KA, Vidourek RA, Merianos AM

Youth suicide is in the top leading causes of death among adolescents and remains an important public health issue for health professionals today. Although much research has examined mental health risk factors for suicide like depression and other mental health disorders, few have examined a more intrapersonal form of mental health, an individual's overall self-concept. The primary aim of this study was to investigate the impact of self-concept on suicidal ideation and suicide attempts across three grade levels. A secondary data analysis was conducted using the National Longitudinal Study on Adolescent to Adult Health (Add Health). All participants were in grades 7-12 (N = 6,504) and completed a computer assisted in-home interview. A total of 12.8% of youth reported suicidal ideation and 3.5% reported attempting suicide in the past 12 months. Overall, suicidal ideation increased with age whereas suicide attempts were consistent among the three groups. Female youth were significantly more likely than male youth to experience both suicidal ideation and suicide attempts. Youth with a low self-concept were at increased odds for suicidal ideation and suicide attempts regardless of sex, race, or grade. Interestingly, the impact of self-concept on suicidal ideation noticeably increased with increased grade level. Odds ratios for suicidal ideation among those with low self-concept were 2.8 (at 7th/8th grade), 3.5 (9th/10th grade), and 4.4 (11th/12th grade). The impact of self-concept on suicide attempts did not increase but rather remained consistently high among the three age groups. Future research is needed to explain reasons for the pronounced impact of self-

concept on suicidal ideation with progressing age. Results from this study support the need for incorporating self-concept into suicide prevention efforts for youth.

Board 39

Trends in Long-Acting Reversible Contraceptive (LARC) Use, LARC Use Predictors, and Dual Method Use among a National Sample of U.S. College Women

Buhi ER, Helmy H

BACKGROUND: Long-acting reversible contraceptives (LARC) are highly efficacious and cost-effective, but little is known about LARC use trends and predictors of use among college women. Further, concerns have been raised about the impact of LARC on condom use and subsequent effects on sexually transmitted infection rates. **METHODS:** We analyzed national data from the American College Health Association-National College Health Assessment II to assess trends in LARC and other contraceptive use, identify predictors of LARC use, and examine relationships between hormonal/LARC method use and condom use among female U.S. college students. Participants included four waves of students (2011-2014), aged 18-24 years, who reported having vaginal sex (N=37,899). **RESULTS:** We found increases in LARC use and usage of condoms, and decreases in use of birth control pills and patches, shots, or rings at last vaginal sex. Hormonal implants are primarily driving the increase of LARC, rather than IUDs, across the four survey cycles, and Black females are primarily driving increases in implant usage. Being older; Black, Hispanic/Latina; American Indian/Alaska Native/Native Hawaiian; biracial; in a relationship and living together; a student at a two-year school were related to LARC use. Students reporting LARC use at last vaginal sex had lower odds of condom usage, compared with non-LARC hormonal method users. **CONCLUSION:** We observed several important shifts, over a four-year period, in the proportion of U.S. college women using contraception. Our analysis of LARC use predictors and dual LARC/condom use has important and timely implications for research and sexual and reproductive health promotion practice.

Board 40

Too Much of a Good Thing? Curvilinear Relationship between Positivity and Emotional Functioning in Adolescent Females

Steinhardt MA, Lehrer MH, Janus KC, Gloria CT

Purpose: Increased positivity – the ratio of one’s experienced positive to negative emotions – is related to superior emotional functioning. Conversely, experiencing too few and/or dysregulated positive emotions is linked with poor emotional functioning (e.g. depressive symptoms, perceived stress). However, recent adult research found a nonlinear relationship between positivity and emotional functioning; specifically, positivity rising unabated without appropriate increases in negativity is associated with diminished functioning (i.e. a U-shaped quadratic curve). Consequences of excessive positivity have not been examined in adolescents. This study investigated the association between positivity and emotional dysfunction (depressive symptoms, perceived stress) in adolescent females. We hypothesized a quadratic regression equation would account for more variance in the relationship between positivity and emotional dysfunction than a linear equation. **Methods:** Participants (n = 510) attending an all-girls public school completed the Modified Differential Emotions Scale assessing positive/negative emotions. Emotional dysfunction was assessed by the Center for Epidemiologic Studies Depression scale and the Perceived Stress Scale. Hierarchical regression models tested the relationship between positivity and the emotional dysfunction variables (depressive symptoms and stress), comparing model fit of a linear equation at step one to a quadratic equation at step two. **Results:** The associations between positivity and emotional dysfunction were best characterized by a quadratic equation compared to a linear equation for both depressive symptoms (R² change = .15, p < .001) and perceived stress (R² change = .09, p < .001), indicating increased emotional dysfunction at

the highest levels of positivity. These quadratic curves were U-shaped, illustrating that both depressive symptoms and stress decreased then increased as positive emotions outpaced negative emotions at elevated frequencies. Conclusions: These results challenge the “more is better” assumption commonly associated with positivity. Interventions that increase experiences of positive emotions and/or decrease experiences of negative emotions—up to a point—promote emotional functioning among female adolescents.