Session III: Substance Use & Mental Health

12. Utilizing a Youth Development Approach to Enhance Delivery of Anti-tobacco Messaging Within School-based Tobacco Education Programs

Anuradha L. Gorukanti, BS¹; Malena Ramos, MEd¹; Steve Smuin, MA²; Ira Sachnoff, MA³; Bonnie Halpern-Felsher, PhD, FSAHM¹

¹University of California, San Francisco; ²da Vinci Educational Consultants; ³Peer Resource Training and Consulting

Purpose: Traditionally, school-based tobacco prevention efforts have aimed to convey information about tobacco risk factors and health outcomes and dispel perceived social norms about cigarette use. These interventions have shown mixed results and are often implemented with significant variability. The primary objective of this study was to collaborate with stakeholders directly affected by these programs – parents, educators, and students – to identify novel messages and delivery strategies that could be used to improve school-based anti-tobacco prevention.

Methods: This study used a community-based participatory research approach. Participants were recruited from schools in the Bay Area through flyers and phone registration. There were a total of 18 focus groups conducted: 7 with middle school and high school parents (N=53; 83% females; 36% Caucasian; 28% Asian and 24% Latino); 3 with middle and high school educators (N=30; 73% females; 77% Caucasian); and 8 with middle and high school students (N=69; Mean age = 14.09, SD = 2.07; 46% females; 55% Caucasian). Participants were asked to discuss reasons why adolescents smoke, provide evaluations of current school-based tobacco education programs, and indicate the challenges of implementing existing and new school-based tobacco prevention.

Results: From these focus groups, three major themes were identified as necessary supplements to existing tobacco education programs. First, students and educators identified the importance of using a youth development approach when developing and presenting material to adolescents. Tobacco education needs to include programming relevant to the learning styles, needs, and interests of the participants of the program. Second, students expressed misconceptions about the addictive quality of cigarettes. When asked about addiction, students were able to provide a general definition but were unclear on the specifics of what constitutes addiction. Students were unaware of how many cigarettes or how long one must smoke to be addicted or what it takes to quit smoking. Finally, educators, students, and parents all addressed cigarette usage as a method of stress relief amongst adolescents. Both middle and high school students acknowledged that peers used cigarettes as a “relaxant” for stressful home life or school situations.

Conclusions: Parents, educators and students did not feel there was a need for another large, comprehensive tobacco education curriculum; instead, the themes identified were considered necessary supplements to existing tobacco education programs. In order for tobacco education programs to impact the greatest number of adolescents, it is important to address smoking risk factors and misconceptions regarding addiction and cigarettes as a “relaxant” tool. However, the method of delivery is as important as the information being addressed. Adding a youth development approach to current school-based tobacco prevention programs and to the supplementary topics will improve message delivery to adolescents.

Sources of Support: Tobacco-Related Disease Research Program (TRDRP). California Department of Education (CDE)
13.

Substance Use, Intimate Partner Violence and Sexual Assault Among Adolescent and Young Adult Female Family Planning Clients

Heather L. McCauley, ScD¹; Jay Silverman, PhD²; Lauren M. Broyles, PhD, RN³; Michele R. Decker, ScD⁴; Daniel Tancredi, PhD²; Sarah Zelazny, BA⁵; Elizabeth Miller, MD, PhD⁵

¹University of Pittsburgh School of Medicine; ²University of California, San Diego; ³VA Pittsburgh Healthcare System; ⁴Johns Hopkins Bloomberg School of Public Health; ⁵Children’s Hospital of Pittsburgh of UPMC

Purpose: Prior studies have documented general associations among substance use, intimate partner violence (IPV) and sexual assault, with a majority of studies suggesting that violence victimization predicts later substance use, though results are conflicting. The purpose of this study was to more comprehensively assess the specific mechanisms through which substance use (women’s or their male partners’), especially during adolescence, increases risk for violence victimization, and how substance use and IPV collectively result in poor sexual and reproductive health in adolescent and young adult women.

Methods: Semi-structured, audio recorded, face-to-face interviews exploring IPV and sexual assault were conducted with 47 heterosexual, White and African American women ages 18-30 seeking services at 24 family planning clinics in Western PA. Interviews in which substance use was identified (38/47 interviews, 81%) were examined further using grounded theory methods to characterize relationships among substance use, IPV, and sexual and reproductive health.

Results: Alcohol was the most commonly reported substance used by women and their male partners, followed by cannabis, opioids, and benzodiazepines. Adolescent and young adult women who described forced or coerced sex typically reported that their perpetrators coerced them to consume alcohol, or that alcohol was consumed by the perpetrator immediately prior to the assault. Respondents often did not define these experiences as sexual assault or rape because of their own concomitant alcohol consumption. When women’s first sexual experience was an assault, this occurred most often in early adolescence, between ages 12 and 14. Self-blame about their exposure to unwanted sex was common. Young women also described forced condom non-use, pregnancy coercion, and other forced sexual acts in the context of their partners’ alcohol use. When drug use by intimate partners was reported, the severity and frequency of physical and emotional abuse escalated with the couple’s drug use. Escalating violence and substance use by male partners resulted in young women’s fear to negotiate condom use and sexual activity. Young women addicted to alcohol or other drugs reported trading sex with male partners for money and drugs.

Conclusions: Substance use by male partners is common among female family planning clients who have experienced IPV and sexual assault, which greatly increases sexual risk in this population. Family planning clients with histories of substance use or with substance-using partners may benefit from trauma-informed clinical services that recognize the health impacts associated with violence exposure in the context of substance use.

Sources of Support: NICHD (1R01HD064407-01A1); HRSA (NRSA T32HP22240)
14. Social Norms and Substance Use Behaviors in a Longitudinal Study of Adolescents in the US and Australia

Marla E. Eisenberg, ScD1; John Toumbourou, PhD2; Richard Catalano, PhD3; Sheryl Hemphill, PhD4

1University of Minnesota; 2Deakin University; 3University of Washington; 4Australian Catholic University

Purpose: Substance use among adolescents in the United States and Australia leads to morbidity and mortality in both locations. The present study builds on social norms theory and existing research by examining two aggregated measures of social norms in the school setting and their associations with alcohol, tobacco and marijuana use two years later in large representative state samples (Washington and Victoria) of adolescents in the US and Australia. We hypothesize that attending a school with greater injunctive norms and descriptive substance use norms in Grade 7 will be independently associated with students’ Grade 9 substance use, net of individuals’ own Grade 7 views on the “coolness” of substance use, own Grade 7 substance use, and other covariates.

Methods: This analysis uses data from the International Youth Development Study, including 1,878 Australian and 956 US students who completed surveys in Grade 7 in 2002 or 2004, and provided follow-up data in Grade 9. The school sample was restricted to those that had at least ten students participating. The sample therefore included 2,248 participants who attended any of 121 schools in Grade 7. Independent variables included two types of social norms: school-wide perceived coolness of substance use (injunctive norm) and prevalence of alcohol, tobacco and marijuana use (descriptive norm) in grade 7. School-level social norms variables were created by aggregating data from Grade 7 participants at each school. Dependent variables included binge drinking and current use of alcohol, tobacco and marijuana (Grade 9). Multilevel logistic regression analysis was conducted to examine associations between each type of school-wide social norm and substance use behaviors in Grade 9, adjusting for covariates.

Results: The prevalence of tobacco use ranged from 0-35.7% of students across 121 schools, current alcohol use ranged from 0-62.5% and marijuana use ranged from 0-26.7%. Schools also had different climates with regards to expectations of the coolness of substance use: aggregated school-level scores ranged from 1.0 to 3.9 (of a possible 1-5). In unadjusted regression models, school-wide substance use norms and coolness norms were each significantly associated with subsequent use of each type of substance. For example, students attending Grade 7 at a high alcohol use school had almost twice the odds of binge drinking in year 9 as students attending a low alcohol use school (OR=1.97, CI=1.68, 2.31). Associations were attenuated in fully adjusted models. Coolness norms were no longer significantly associated with Grade 9 use, but substance use norms remained significantly associated with binge drinking, tobacco use and marijuana use in the expected direction.

Conclusions: Findings indicate that the school social environment in Grade 7 was predictive of alcohol, tobacco and marijuana use two years later, even after accounting for participants’ own prior use of the same substance and beliefs about the coolness of use. This study highlights the importance of addressing social norms in the school context, rather than just individual use, as part of prevention efforts for adolescent substance use.

Sources of Support: Grants R01DA012140-05 (NIDA), 1R01AA017188-01 (NIAAA), the Australian Health Management Research Fund, and the Victorian Health Promotion Foundation.
15. Problematic Internet Use and Substance Use in Adolescence

JC Suris, MD, MPH, PhD; Christina Akre, MA; Anne-Emmanuelle Ambresin, MD; André Berchtold, PhD; Claire Piguet, MA; Grégoire Zimmermann, PhD

1Lausanne University Hospital; 2University of Lausanne

Purpose: To assess whether problematic Internet use is associated with substance use among adolescents.

Methods: Survey among 3067 8th graders in Switzerland (mean age 14 years, 50.3% females). Using the Internet Addiction Test (IAT), we divided the sample into non problematic (NPU: IAT<50, N=2708) and problematic users (PU: IAT>49; N=360). Groups were compared regarding age, gender, family structure, emotional wellbeing, academic performance, main Internet use purpose, self-reported current smoking, alcohol misuse (drunkenness), cannabis use, and use of other illegal drugs. A logistic regression for each substance was performed including demographic variables significant at the bivariate level using STATA 12. Results are given as adjusted Odds Ratios (aOR) with 95% confidence intervals.

Results: PU were significantly more likely to be females (13.4% vs. 10%), reporting lower emotional wellbeing (30.8% vs. 14.4%), being below average students (14.8% vs. 7.6%), and using the Internet mainly for leisure (80.1% vs. 64.6%). They were also more likely to smoke (30.8% vs. 14.4%), misuse alcohol (19.0% vs. 9.6%), and use cannabis (18.2% vs. 8.0%) or other illegal drugs (5.4% vs. 2.4%). When controlling for significant variables, PU students were more likely to be current smokers (aOR: 2.05 [1.55/2.70]), alcohol misusers (aOR: 1.72 [1.24/2.40]), cannabis users (aOR: 1.94 [1.38/2.72]), or users of other illegal drugs (aOR: 2.73 [1.41/5.31]).

Conclusions: Problematic Internet use is associated with substance use and may be part of an addiction profile among young adolescents. From this perspective, problematic Internet use could be considered as an indicator to screen for substance use. Health professionals dealing with adolescents should investigate substance use in young adolescents reporting excessive use of the Internet. Longitudinal data are needed to better understand the causal relationship between problematic Internet use and substance use.

Sources of Support: This study was supported by the Service of Public health of the canton de Vaud and the Swiss National Foundation
16.

A Novel Haplotype in the Corticotropin-releasing Hormone Receptor 1 Gene (CRHR1) Moderates the Link Between Life Stress and Depression Among Rural African American Youths

Yifu Chen, PhD
National Taipei University

Purpose: Two independent studies of rural African American youths were used to test the moderation effect a novel haplotype in the corticotropin-releasing hormone receptor 1 gene (CRHR1) on the link between life stress and the change of depression over 4 years.

Methods: 16-year-old (N=502) and 18-year-old (N=347) African American youths were randomly selected from rural Georgia as a part of two 4-year longitudinal studies (SAAFT and AIM). Negative life event and depression symptoms were collected over 4 years. Genetic data were also collected along with the survey data. Haplotype analysis were performed on 10 SNPs of the CRHR1 gene and a GC haplotype was identified as a protective factor of youth depression. A latent growth model was performed to test whether the GC haplotype moderates the link between wave 1 negative life event and change (slope) of youth depression across 4 years. We replicated the analysis with the two independent data sets. All the analyses were performed in MPLUS 6.0.

Results: A CRHR1 haplotype X negative life event (GXE) interaction significantly predicted the slope of youth depression in the latent growth model (b=-.03, p<.05 for SAAFT and b=-.05, p<.05 for AIM) With exposure to high level negative life event at wave 1 (1 SD above mean), youths who do not carry a CG copy in the CRHR1 haplotype showed stable and high depression across time while those who carry a least one CG copy showed a decreasing trend in depression. Youths who carry a CG haplotype were protected from the influence of stressful life events. Similar results were found both in SAAFT and AIM.

Conclusions: The replication design strengthens the findings of the current study. Results suggest that a diathesis-stress hypothesis was supported as oppose to a susceptibility hypothesis when concerning a GXE interaction.

Sources of Support: This study was supported by Awards Numbers R01DA021736 and P30DA027827 from the National Institute on Drug Abuse.
Eating Disorders in Adolescents: How does the DSM-5 Change the Diagnosis?

Martin M. Fisher, MD, FSAHM; Marisol Gonzalez, MD; Joan Malizio, RN
Cohen Childrens Medical Center of New York

Purpose: The 5th edition of the Diagnostic and Statistical Manual (DSM-5) was published in May 2013. Several new eating disorder diagnoses were included, with one goal of the changes being to better classify the large number of patients who had received the non-specific diagnosis of eating disorder not otherwise specified (EDNOS) in the DSM-IV. This study evaluated the changes in diagnosis for the patients presenting to one adolescent medicine eating disorders program using the old DSM-IV and new DSM-5 criteria.

Methods: The 309 patients who presented from September 2011 through December 2012 for the evaluation of an eating disorder to the out-patient office of the Division of Adolescent Medicine of Cohen Children's Medical Center of New York were given both DSM-IV and DSM-5 diagnoses by the lead author within 48 hours of presentation. An algorithm provided by the Eating Disorders Workgroup of the American Psychiatric Association was utilized to make the DSM-5 diagnoses.

Results: DSM-IV diagnoses were: anorexia nervosa (AN)-81 (26.2%); bulimia nervosa (BN)-29 (9.6%); binge eating disorder (BED)-1 (0.3%); and EDNOS-198 (64%). All patients with AN, BN, and BED in the DSM-IV had the same diagnosis in the DSM-5. Among the 198 patients with EDNOS in the DSM-IV, 19 were re-classified as AN, none were re-classified as BN or BED, a large number were re-classified into the newly described Other Specified Feeding or Eating Disorders (93 Atypical AN, 18 purging disorder, 2 BN of low frequency, 2 BED of low frequency), 60 were re-classified as the newly described diagnosis of Avoidant/Restrictive Food Intake Disorder (ARFID), which includes those who do not have fear of weight gain or distorted body image, and only 4 were classified as Unspecified Feeding or Eating Disorder.

Conclusions: In this cohort of 309 patients with eating disorders, more than 60% of patients were classified as having EDNOS using the DSM-IV criteria and almost all of these patients were successfully re-classified with a specific diagnosis using the DSM-5 criteria. Almost 20% of the patients were classified as having the newly described diagnosis of ARFID in the DSM-5. These findings demonstrate great promise for the use of the DSM-5 eating disorders diagnoses in the years ahead.

Sources of Support: There are no sources of support