



4th Annual Collaborative  
Perspectives on Addiction Meeting

# Reducing Health Disparities through Addiction Science and Practice

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COLLABORATIVE  
**A**PERSPECTIVES on  
ADDICTION



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4<sup>th</sup> Annual Meeting  
March 18-19, 2016  
San Diego, CA

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## THANKS TO OUR SPONSORS



## ABOUT CPA

Addiction is a significant public health problem that impacts nearly every family in the United States. The purpose of the **COLLABORATIVE PERSPECTIVES ON ADDICTION** (CPA) meeting, launched in 2013, is to bring together scientists and practitioners from the Society of Addiction Psychology and related American Psychological Association divisions. The ultimate goal of CPA is to improve the prevention and treatment of addiction through **ACCELERATING RESEARCH** and building **COLLABORATIVE RELATIONSHIPS**.

## CPA 2016 PROGRAM COMMITTEE

### PROGRAM Co-CHAIRS:

**ROBERT LEEMAN**, PhD, University of Florida  
**JAMES MURPHY**, PhD, University of Memphis

### CPA LOGISTICS:

**JENNIFER BUCKMAN**, PhD, Rutgers University  
**KATIE WITKIEWITZ**, PhD, University of New Mexico

### DIVISION 50 PRESIDENT/PAST-PRESIDENTS:

**SHERRY MCKEE** PhD, Yale University  
**ALAN BUDNEY**, PhD, Dartmouth University  
**JOHN F. KELLY**, PhD, Harvard Medical School  
**SARA JO NIXON**, PhD, University of Florida

### PROGRAM – SPONSORSHIPS – STUDENT EVENTS:

**ART BLUME**, PhD, Washington State University  
**CLARA BRADIZZA**, PhD, University of Buffalo  
**NOAH EMERY**, MA, University of South Dakota  
**NANCY HAUG**, PhD, Palo Alto University  
**LAUREN HOFFMAN**, MS, University of Florida  
**MEGAN KIROUAC**, MS, University of New Mexico  
**DUSTIN LEE**, PhD, Dartmouth University  
**MATEO PEARSON**, PhD, University of New Mexico  
**PAOLA PEDRELLI**, PhD, Harvard Medical School  
**NANCY PIOTROWSKI**, PhD, Capella University  
**TY SCHEPIS**, PhD, Texas State University  
**JESSE SUH**, PhD, University of Pennsylvania  
**RYAN TRIM**, PhD, UCSD and San Diego VA

# COLLABORATIVE PERSPECTIVES on ADDICTION

## Friday, March 18

**7:00 am – 5 pm** Registration  
**8:00 am– 12 pm** Workshops  
**1:00 – 1:15 pm** Welcome!  
**1:15 – 2:15 pm** Keynote (Caetano)  
**2:15 – 3:30 pm** Symposia  
**3:45 – 5:00 pm** Symposia  
**5:30 – 7:00 pm** Posters/Reception

## Saturday, March 19

**7:00 am – 5 pm** Registration  
**8:30 – 9:15 am** Papers  
**9:30 – 10:45 am** Symposia  
**11:00 – 12:15 pm** Symposia  
**12:30 – 1:30 pm** Networking Lunch  
**1:30 – 2:30pm** Poster Session  
**2:30 – 3:45 pm** Symposia  
**4:00 – 5:00 pm** Keynote (Tapert)  
**5:00 – 6:30 pm** Posters/Reception

Continuing education (CE) provided during the Collaborative Perspectives on Addiction meeting is provided by APA Society of Addiction Psychology. The Society of Addiction Psychology is approved by the APA to sponsor CE for psychologists. The Society of Addiction Psychology maintains responsibility for this program and its content. Sessions eligible for CE are marked with the amount of CE credits available. **You must sign-in/sign-out and complete a survey for all sessions to receive your CE completion certificate.** Please see the registration desk for more information.



“America’s finest city” and one of the largest international metropolitan areas in the United States. A city famous for an excellent climate and **MULTICULTURALISM** is the best kind of city to house our fourth Collaborative Perspectives on Addiction meeting that aims to examine **REDUCING HEALTH DISPARITIES** through addiction science and practice. This meeting brings **TOGETHER** leaders from the **Society for the Psychological Study of Culture, Ethnicity and Race** and the **Society of Addiction Psychology** to facilitate interchange and professional **DEVELOPMENT** opportunities. The program is designed to **ENGAGE** early career psychologists and trainees while providing all with the caliber of **RIGOR** and **SUBSTANCE** you have come to expect from the Collaborative Perspectives on Addiction meeting and the Society of Addiction Psychology. Along with our two outstanding keynotes, engaging workshops, and several exceptional symposia speakers, **welcome to San Diego!**

# KEYNOTE SPEAKERS

## Drinking, Binge Drinking and Alcohol Related Problems among U.S. Hispanics



### Raul Caetano, MD, PhD

Dr. Raul Caetano is Professor of Epidemiology in the School of Public Health and Dean in the University of Texas Southwestern School of Health Professions. Dr. Caetano, a native of Brazil, earned an MD from the State University of Rio de Janeiro in 1969.

After studying psychiatry at the University of London in England, he came to the United States in 1978 and earned a Master of Public Health in behavioral sciences and a PhD in epidemiology from the University of California, Berkeley. In 1983, he began working as a senior scientist for the California-based Alcohol Research Group, a National Institutes of Health-supported national alcohol research center that studies alcohol and drug use and related topics, and was director by the time he left to join the UT System in 1998. Dr. Caetano has published his work on various topics, including the epidemiology of substance abuse and alcohol use by minorities. He serves on the editorial boards of many substance-abuse publications and is a member of the advisory board of a number of related agencies in the community.

## Neuroimaging Findings in Youth: Does Teenage Substance Use Harm the Brain?



### Susan Tapert, PhD

Dr. Tapert is Professor of Psychiatry at the University of California, San Diego, a licensed clinical psychologist, and the Chief of Psychology Service at the VA San Diego Healthcare System. Dr. Tapert's primary research interests are in the neural substrates of alcohol and

substance use disorders in adolescence and young adulthood. Her work uses a range of techniques, including magnetic resonance imaging (MRI), functional MRI, diffusion tensor imaging, and neuropsychological testing. She has been awarded over 20 NIH research grants and has published over 150 peer-review papers and book chapters. In 2008, she was honored with the APA Division 50 Distinguished Scientific Early Career Contribution Award. Dr. Tapert is Scientific Director and a site PI for the National Consortium on Alcohol and NeuroDevelopment in Adolescence, and Associate Director and a site PI for the Adolescent Brain Cognitive Development (ABCD) study, which was launched in 2015 to explore the developing minds and brains of 10,000 children.

# TRAVEL AWARD WINNERS

**CONGRATULATIONS** to the following travel award winners for the 2016 Collaborative Perspectives on Addiction meeting. Five posters were selected based on overall quality, innovation, and appropriateness to the theme of the 2016 CPA meeting:

**Guadalupe Bacio, PhD, University of California San Diego**

**Jennifer Benson, MS, University of New Mexico**

**Jon Houck, PhD, University of New Mexico**

**Kayleigh McCarty, BS, University of Missouri**

**Jennifer Merrill, PhD, Brown University**

## Poster Times

**Friday 5:30-7:00pm**

**4. Impact of Ethnic Composition on Mechanisms of Change in School-Based Substance Use Prevention Groups.** **Guadalupe Bacio PhD**, Kristin Tomlinson PhD, Tracey Garcia PhD, Kristen Anderson PhD, Sandra Brown PhD, Mark Myers PhD

**Saturday 1:30-2:30pm**

**3. Counselor Communication Patterns Vary by Youth Ethnicity: Preliminary Results from Motivational Interviewing.** **Jon M. Houck PhD**, Jennifer G. Benson MS, L. Nikki Rowell MS, Sarah W. Feldstein Ewing PhD, Angela D. Bryan PhD

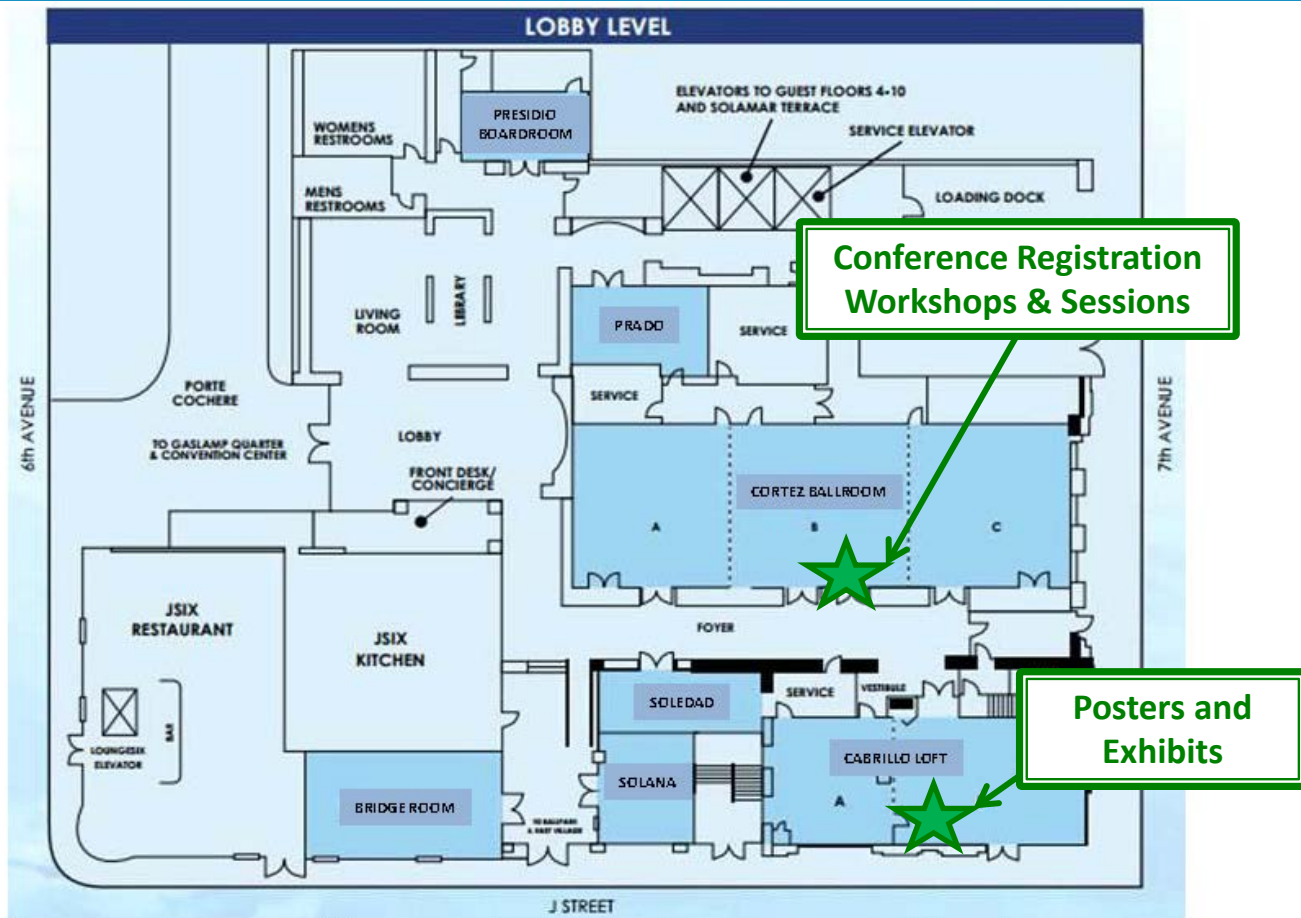
**11. Case Management with Prenatal Substance Users to Improve Parenting Attitudes.** **Jennifer Benson MS**, Peggy MacLean PhD, Andrew Hsi MD

**18. A Time-varying Effect Model of the Dynamic Association between Alcohol Use and Consequences over the First Years of College.** **Jennifer Merrill PhD**, Shannon Kenney PhD, Nancy Barnett PhD

**21. Differential Prediction of Alcohol Problems using the UPPS-P Measure of Impulsivity.** **Kayleigh N. McCarty BS**, David H. Morris MA, Laura E. Hatz BS, Denis M. McCarthy PhD



# HOTEL MAP



## STUDENT and EARLY CAREER EVENTS

**Thursday March 17 8:00-10:00pm**

**Pre-Conference Student and Early Career Psychologists Social Hour**

Hosted by Society of Addiction Psychology  
**Lounge Six in Hotel Solamar**  
**435 6th Ave., San Diego**



Students and early career psychologists, please join us at Lounge Six in the Solamar for drinks, food, and conversation.

**Get Involved with Society of Addiction Psychology!**

Please contact the Student Reps for more information:

Noah Emery [noah.emery@coyotes.usd.edu](mailto:noah.emery@coyotes.usd.edu)

Lauren Hoffman [lahoffman@ufl.edu](mailto:lahoffman@ufl.edu)

Megan Kirouac [mkirouac@unm.edu](mailto:mkirouac@unm.edu)

**Friday March 18 8:00-10:00pm**

**Early Career Social & Networking Event at CPA 2016**

Hosted by Society of Addiction Psychology

**The Whiskey House**  
**420 3rd Ave., San Diego**



Students and early career psychologists, please join us for a casual social event where you will have the opportunity to form new professional relationships with your peers and Division 50 leaders. Light food will be provided and a cash bar will be available. Walking distance from hotel.

# 2016 CPA: FRIDAY SCHEDULE

## FRIDAY MARCH 18 8:00 AM – 12:00 PM

### Pre-Conference Workshops

#### **Mindfulness-Based Interventions for Alcohol and Substance Use Disorders: Empirical Findings and Recent Adaptations** Cortez B

**Presented by** Katie Witkiewitz PhD, Sarah Bowen PhD, and Corey Roos MS. This experiential workshop presents a manualized mindfulness-based intervention for alcohol and substance use disorders. Mindfulness Based Relapse Prevention (MBRP) for addictive behaviors is an 8-week group treatment program that was designed as an aftercare intervention to increase awareness of triggers and automatic reactions in the service of reducing the risk of relapse following treatment. Lecture, discussion, case examples, demonstrations, and role-playing will also be used to facilitate learning of material. [6 CE](#)

#### **Cannabis (Marijuana): What You Need to Know To Effectively Assess, Advise, Educate, Prevent, and Treat** Cortez C

**Presented by** Alan J. Budney PhD, and Denise D. Walker PhD. This workshop will present information and engage discussion on aspects of cannabis use relevant to providing effective prevention and treatment. Time will be devoted to development of a knowledge base related to diverse forms of cannabis and its active constituents, new cannabis products and devices, and how these impact perception of risk and decisions to use or not. The workshop will devote time to discussion of potential consequences of cannabis use, pros and cons, and the quality of the data available that informs our perceptions of such consequences. [6 CE](#)

## FRIDAY MARCH 18 10:00 AM – 12:00 PM

#### **A Look Inside the Funding Process at NIAAA** Cortez A

**FREE! Presented by** Drs. Robert Huebner and Anita Bechtolt, National Institute on Alcohol Abuse and Alcoholism. This workshop is intended to provide grantees with details about how the funding process really works at NIAAA and clarify the role of program staff in that process. The session will consist of a formal presentation by program staff followed by an open ended discussion. The overall goal is to get everyone's questions answered. The workshop is geared toward trainees and early investigators, but all are welcome to attend.

## FRIDAY MARCH 18 1:00 – 2:15 PM

### Conference Opening – Cortez Ballroom

**Keynote Address:** **Drinking, Binge Drinking, and Alcohol Related Problems among U.S. Hispanics** [1 CE](#) Raul Caetano, MD, PhD

## FRIDAY MARCH 18 2:15 - 3:30 PM

#### **Community-based Culturally Adapted SUD Interventions for AI/AN** Cortez

Enormous substance use disorder (SUD) and other health disparities exist for American Indians/Alaska Natives (AI/ANs). In this symposium, presenters will discuss processes and outcomes for successful, culturally-adapted SUD prevention and treatment interventions with culturally and geographically diverse AI/AN communities, based on community-based participatory research [1.25 CE](#) Dennis Donovan PhD, Kamila Venner PhD, Stacy Rasmus PhD, Billy Charles James Allen PhD, and Dennis Wendt PhD

## FRIDAY MARCH 18 3:45 – 5:00 PM

#### **Community-based 12-Step Programs and Disenfranchised Substance Users** Cortez A

More people go to community-based 12-step programs than to formal treatment for help with substance use problems. This symposium will offer four perspectives to assess the flexibility and merit of community-based 12-step programs in addressing the needs of underserved substance abusers and their family members. [1.25 CE](#) Scott Tonigan PhD, Claire Wilcox MD, Sarah Zemore PhD, and Christine Timko PhD

#### **Contributions from Psychology to Understand and Promote Low Risk Drinking** Cortez B/C

This symposium will examine positive contributions from psychology to understanding and promoting low risk drinking that have accrued since early treatment studies documented the then-controversial phenomenon. Revisiting the issue has relevance for increasing the appeal, effectiveness, and population impact of a spectrum of alcohol-related services for different population segments, including underserved groups. [1.25 CE](#) Jalie Tucker PhD MPH, Sara Jo Nixon PhD, Robert Leeman PhD, and Sandra Brown PhD

## FRIDAY MARCH 18 5:30 – 7:00 PM

### Poster Session and Social Hour Cabrillo Loft

# 2016 CPA: SATURDAY SCHEDULE

## SATURDAY MARCH 19 8:30 – 9:15 AM

### Update on SMART Recovery: Science-based, Self-Empowering Mutual Help **Cortez A**

This presentation will provide an overview of the SMART (Self Management And Recovery Training) approach, the organization and its history, and the scientific work on SMART. [1.0 CE](#) Tom Horvath PhD ABPP

### The Sociopharmacology of Health Disparities in Addiction **Cortez B/C**

This presentation will provide an overview of sociopharmacology and will discuss how sociopharmacology may translate into interventions that reduce addiction related health disparities. [1.0 CE](#) Adam Leventhal PhD

## SATURDAY MARCH 19 9:30 – 10:45 AM

### The Role of Race, Ethnicity, and Related Factors in Substance Use Patterns **Cortez A**

This session explores the drug- and alcohol-use behaviors of diverse racial/ethnic groups in treatment and in the general community across both treatment-seeking and non-problem substance using community members. Lauren Hoffman MS, Natalie Ceballos PhD, Brenna Greenfield PhD, and Sara Jo Nixon PhD

### The Risks of Mixing Alcohol and Energy Drinks and Implications for Public Policy **Cortez B/C**

This translational symposium will highlight new findings on the heightened risk of mixed alcohol and energy drinks from both human and animal studies. The options for possible public policy responses will be discussed. [1.25 CE](#) Cecile Marczynski PhD, Amelia Arria PhD, Kate Miller PhD, William Griffin PhD, and Erin Bonar PhD

## SATURDAY MARCH 19 11:00 – 12:15 PM

### Treatment for Veterans with Substance Use and Psychiatric Disorders **Cortez**

This symposium will review outcome data from a series of novel clinical therapy trials conducted at the San Diego VA over the past 15 years. Potential areas for future exploration with this population will be discussed. [1.25 CE](#) Ryan Trim PhD, Sonya Norman PhD, Sandra Brown PhD, Peter Colvonen PhD, and Moira Haller PhD

## SATURDAY MARCH 19 12:30 – 1:30 PM

### Networking Lunch **Cortez** Featuring NIAAA Director Dr. George Koob

## SATURDAY MARCH 19 1:30 – 2:30 PM

### Poster Session **Cabrillo Loft**

## SATURDAY MARCH 19 2:30 – 3:45 PM

### Recent Advances in Young Adult Substance Abuse Prevention **Cortez A**

This symposium will examine new approaches for substance abuse prevention among young adults, including an examination of neurocognitive functioning in young adult drinkers, behavioral economic interventions for young adult drinking and drug use, and mobile-based intervention for substance-impaired driving. James Murphy PhD, Ashley Dennhardt PhD, Lidia Meshesha MS, Alison Pickover MS, and Jenni Teeters MS

### More than Opioids Alone: Effect of Problematic Substance Use in Chronic Pain **Cortez B/C**

Significant attention has been paid to the complexity surrounding opioid use in chronic pain. Yet, problematic substance use in chronic pain involves more than opioids alone and information on the prevalence and impact of non-opioid substance misuse is needed. This symposium is organized to provide direct guidance for clinicians, researchers, and policy makers by providing information on scope, impact, and available data on opiates, pain, and substance use. [1.25 CE](#) Katie Witkiewitz PhD, Kevin Vowles PhD, Emily Law PhD, and Mark Ilgen PhD

## SATURDAY MARCH 19 4:00 – 5:00 PM

### Keynote Address: Neuroimaging Findings in Youth: Does Teenage Substance Use Harm the Brain? [1.0 CE](#) Susan Tapert, PhD

## SATURDAY MARCH 19 5:00 – 6:30 PM

### Awards Ceremony Poster Session and Social Hour **Cabrillo Loft**

## Racial/Ethnic/Minority Group Differences and Health Disparities

1. **Explanatory Models of Alcohol Sobriety and Treatment in an Urban Alaska Native Context.** Lisa Dirks MLIS MAdm, Jennifer Shaw PhD, Denise Dillard PhD, Susan B. Trinidad MA, Wylie Burke MD PhD, Evette Ludman PhD
2. **A Randomized Community Trial to Reduce Use of Harmful Legal Products to Get High Among Adolescents in Frontier Alaska.** Joel W. Grube PhD, Kristen Ogilvie PhD, Knowlton W. Johnson PhD, Stephen R. Shamblen PhD, David Collins PhD, Lisa Dirks MLIS, Kirsten Thompson MA
3. **Abstinence Self-Efficacy and Past-Month Drinking Days Among Native American College Students.** Violette Cloud BA, Kamilla Venner PhD, Kylee Hagler MS
4. **Impact of Ethnic Composition on Mechanisms of Change in School-Based Substance Use Prevention Groups.** Guadalupe Bacio PhD, Kristin Tomlinson PhD, Tracey Garcia PhD, Kristen Anderson PhD, Sandra Brown PhD, Mark Myers PhD
5. **Microaggressions, Ethnic Identity, and Alcohol Problems.** Monica Skewes PhD, Art Blume PhD

## Co-Occurring Disorders

6. **Attachment Dimensions, Substance Use Severity, and Psychological Distress among Adults with Co-Occurring Disorders.** Robert Teel MA, Mark Teles MA, Austin Slade MA, Patricia Judd PhD
7. **Exploring Pre-Treatment Differences between Residential and Outpatient Programs for Veterans with Alcohol Use Disorders and Comorbid Combat-Related PTSD.** Moira Haller PhD, Rebecca Bogner, Brittany Davis PhD, Peter Colvonen PhD, Ryan Trim PhD, Sonya Norman, PhD
8. **Examining the Relationship between Substance Use Severity, Functional Impairment, and PTSD Treatment Outcomes in Veterans.** Alex Guendert BA, Peter Colvonen PhD, Sonya Norman PhD, Brittany Davis PhD
9. **Lower Education, Younger Age, Male Sex, and PTSD Severity Are Related to Alcohol Misuse in OEF/OIF/OND Veterans.** Jessica Tripp MS, Meghan E. McDevitt-Murphy PhD, Megan L. Avery PhD
10. **Substance-Related Findings from Randomized Controlled Trials of Treatments for PTSD.** Tessa Frohe BA, Robert Leeman PhD, Kathryn Hefner PhD, Mehmet Sofuoglu PhD

## Treatment

11. **Social Network Site Participation in a Clinical Sample of Emerging Adults with Substance Use Disorder.** Brandon G. Bergman PhD, Edward James Sylvia MA MHC, John F. Kelly PhD
12. **Facial Affect Recognition Accuracy during Early Alcohol Abstinence: Sex Differences.** Darrin Aase PhD, Cheryl Mejta PhD
13. **Substance Use and Sexual Risk Behavior in a Residential Treatment Population.** Emily Yeagley MA MPH, Laura C. Thomas MPH LMSW, Erin Bonar PhD, Mary Jannausch MPH, Amy Bohnert PhD, Mark Ilgen PhD
14. **Missing Data in Alcohol Clinical Trials with Binary Outcomes.** Kevin A. Hallgren PhD, Katie Witkiewitz PhD, Henry R. Kranzler MD, Daniel E. Falk PhD, Raye Z. Litten PhD, Stephanie O'Malley PhD, Raymond F. Anton MD.
15. **Cannabis Use during Treatment for Alcohol Use Disorders is Associated with More Frequent Alcohol Consumption.** Meenakshi Sabina Subbaraman PhD, Deidre Patterson MPH, Jane Metrik PhD, Robert Swift MD
16. **Acute Inhibitory Control Training in Cocaine Users.** Craig R. Rush PhD, Joseph L. Alcorn III PhD, Erika Pike MS, Joshua A. Lile PhD, William W. Stoops PhD

## Behavioral Economics, Cognitive Science and Behavioral Neuroscience

17. **Behavioral Economic Predictors of Moderation Outcomes during Natural Recovery from Alcohol Problems.** Jalie Tucker PhD MPH, Susan Chandler MPH MA, JeeWon Cheong PhD, Brice Lambert MSPH, Brittney Pietrzak MPH, Heather Kwok MS, Susan L. Davies PhD
18. **Alcohol Craving and Demand as Mediators between Depression and Anxiety Symptoms and Alcohol Problems.** Kathryn Soltis BS, Brian Borsari PhD, Ashley A. Dennhardt PhD, Matthew P. Martens PhD, Jenni B. Teeters MS, James G. Murphy PhD
19. **Measuring Incentive Salience to Alcohol: Self-Report, Implicit, and Behavioral Economic Approaches.** Peter Minge, Alyssa R. Allen BS, Kevin S. Montes PhD, Matthew R. Pearson PhD
20. **The Substitutability of Cigarettes and Food: A Behavioral Economic Approach.** Cara Murphy PhD, James MacKillop PhD, Lawrence Sweet PhD, Max Owens PhD
21. **A Substance Free Activities Session Combined with a Brief Motivation Intervention Reduces Driving after Marijuana Use among College Marijuana Users.** Jenni Teeters MS, Bettina Utzelmann, Alison Pickover MS, Lidia Meshesha MS, James Murphy PhD
22. **Latent Profile Analysis of Alcohol Approach and Avoidance Inclinations in Social, Problematic, and Formerly Problematic Drinkers.** Jacob A. Levine BA, Emily T. Noyes BS, Rita L. Christensen PhD, Robert C. Schlauch PhD
23. **Change in Youths' Alcohol-Related Cognitions after Participation in a School-Based Behavioral Intervention.** Kristin Tomlinson PhD, Mark G. Myers PhD, Sandra A. Brown PhD, Guadalupe Bacio PhD
24. **Relationships between Alcohol Use, Depression, and Neurocardiac Functioning.** Laura Banu BA, Jennifer Buckman PhD, Ryan Olson MA, Christopher Brush BS, David Eddie MS, Deena Peyser MS, Marsha Bates PhD, Tracey Shors PhD, Brandon Alderman PhD
25. **Role of Resting State Functional Connectivity and Temperament in Rhesus Macaque Ethanol Self-Administration.** Megan McClintick BS, Julian "Bene" Ramirez BA, Damien Fair PA-C PhD, Kathy Grant PhD
26. **Sober Resting Heart Rate as a Risk Factor for Alcohol Induced Heart Rate increases and Stimulation.** Angela Harrid, William R. Corbin PhD, Caitlin Scott MA, Jessica Hartman BS



## Racial/Ethnic/Minority Group Differences and Health Disparities

1. **Exposure to Stress and E-Cigarette Use: Examining the Moderating Effects of Race and Gender.** Kristin Brikmanis BA, Neal Doran PhD
2. **Conduct Disorder and Substance Use Disorder Comorbidity in a Longitudinal Sample of Indigenous Adolescents.** Brenna Greenfield PhD, Kelley Sittner PhD, Melissa Walls PhD
3. **Counselor Communication Patterns Vary by Youth Ethnicity: Preliminary Results from Motivational Interviewing.** Jon M. Houck PhD, Jennifer G. Benson MS, L. Nikki Rowell MS, Sarah W. Feldstein Ewing PhD, Angela D. Bryan PhD
4. **Treatment Fidelity of Motivational Interviewing when Delivered in Spanish and English to Hispanic Heavy Drinkers.** Tonya Tavares MS, Christina S. Lee PhD., Julissa Ayala BA, Joanna Almeida ScD MSW MPH, Dharma E. Cortes PhD, Damaris J. Rohsenow PhD, Suzanne M. Colby PhD

## Co-Occurring Disorders

5. **Cannabis Use, PTSD Symptoms and Outcome Expectancies: A Moderated-Mediation Model.** Kristoffer Rehder MS, Danielle Sitzman PhD, Kayleen Islam-Zwart PhD, Sarah Bowen PhD
6. **Anxiety Sensitivity and Subjective Effects of Alcohol, Cigarettes, and Cannabis in Adolescents.** Raina D. Pang PhD, Casey R. Guillot PhD, Michael J. Zvolensky PhD, Adam M. Leventhal PhD
7. **Longitudinal Examination of the Association between Internalizing Symptomatology and Delinquent Behaviors in Adolescent Tobacco Use.** Rubin Khoddam MA, Nicholas Jackson MPH MA, Adam Leventhal PhD

## Treatment

8. **Importance of Tobacco Use Assessment within Adolescent Substance Abuse Treatment.** Sandhya Kutty Falls BS, Bryan W. Heckman PhD, Joshua P. Smith PhD, Viktoriya Magid PhD
9. **21<sup>st</sup> Century Recovery Management: Characterizing Members of a Recovery-Specific Social Network Site.** Brandon Bergman PhD, Nathaniel W. Kelly, Corrie Vilsaint PhD, Bettina B. Hoepfner PhD, John F. Kelly PhD
10. **Development and Validation of a 10 – Item Short Form for the Assessment of Recovery Capital using Item Response Theory.** Corrie Vilsaint PhD, John F. Kelly PhD, Teodora Groshkova PhD, David Best PhD, William White PhD
11. **Case Management with Prenatal Substance Users to Improve Parenting Attitudes.** Jennifer Benson MS, Peggy MacLean PhD, Andrew Hsi MD
12. **Non-Abstinence AUD Treatment: A Clinical Review of Successful Alcohol Moderation.** Adi Jaffe, PhD, Seal Molnar, Therese Todd
13. **Substance Use Diagnosis, Alcohol Use, and Symptom Severity in Psychiatric Inpatients.** Aquila Richardson MA, Avivah McDade MA, Sarah Schubmehl MA, Raquel Osorno MS, Gregory Katzen MS, Melissa O'Donnell MS, Jennifer Bielenberg MS, Samuel Barkin MA, David Sugarbaker MS, Doug Cort PhD

## College Student Substance Use

14. **Drinking Beyond Intended: A Model of Unplanned Drinking Behavior.** Angelica B. Velazquez, Kevin S. Montes PhD, Adrian J. Bravo MS, Matthew R. Pearson PhD, James M. Henson PhD
15. **Creating Profiles of Alcohol Use and Aggressive Behavior in College Athletes.** Fiona Conway PhD MSW, Robert Monaco MD MPH, Jason Womack MD, Jennifer Buckman PhD
16. **Differences among College Students of Varying Levels of Substance Use.** Inga Mileviciute MS, Mark Myers PhD
17. **Associations between Motives for Marijuana Use and Reinforcing Efficacy in College Student Marijuana Users.** Alison M. Pickover MS, Samuel F. Acuff BS, James Murphy PhD
18. **A Time-varying Effect Model of the Dynamic Association between Alcohol Use and Consequences over the First Years of College.** Jennifer Merrill PhD, Shannon Kenney PhD, Nancy Barnett PhD

## Individual Differences

19. **Depressive Symptoms and Coping Motives on Naturalistic Trends in Negative and Positive Alcohol Consequences.** Shannon Kenney PhD, Jennifer Merrill PhD, Nancy Barnett PhD
20. **Relationships among Impulsivity, Subjective Response and Alcohol Use in Past-Year Heavy Drinkers.** Benjamin Berey BA, Brian Pittman MS, Stephanie O'Malley PhD, Robert Leeman PhD
21. **Differential Prediction of Alcohol Problems using the UPPS-P Measure of Impulsivity.** Kayleigh N. McCarty BS, David H. Morris MA, Laura E. Hatz BS, Denis M. McCarthy PhD

## Marijuana

22. **Marijuana Demand and Problems as Predictors of Marijuana Change Efforts.** Elizabeth Aston PhD, Jane Metrik PhD
23. **Development and Validation of the Marijuana Injunctive Norms Scale.** Natalie W. Wendel, Alyssa R. Allen BS, Tatyana Kholodkov PhD, Adrian J. Bravo MS, Matthew R. Pearson PhD, Marijuana Outcomes Study Team
24. **A Latent Profile Analysis of Marijuana Users.** Cynthia K. Wenzl BS, Alyssa R. Allen BS, Matthew R. Pearson PhD, Marijuana Outcomes Study Team
25. **Personality, Marijuana Perceptions, and Marijuana Outcomes among College Students.** Alyssa R. Allen BS, Natalie W. Wendel, Adrian J. Bravo MS, Kevin S. Montes PhD, Matthew R. Pearson PhD, Marijuana Outcomes Study Team
26. **An Examination of the Training and Practices of Cannabis Dispensary Staff.** Dustin Kieschnick BA, James E. Sottile BA, Robin Brody BA, Kimberly Babson PhD, Marcel O. Bonn-Miller PhD, Nancy A. Haug PhD

## Racial/Ethnic/Minority Group Differences and Health Disparities

1. **Building Relationships, Promoting Health: A Preliminary Evaluation of a Culturally Based Substance Abuse Prevention and Outreach Program in a University Setting.** Alicia San Miguel BS
2. **Substance Abuse among American Indians and Alaska Natives: An Integrative Conceptual Model for Advancing Research.** Hyo Jin Lee, Blake Hilton MA, Hector Betancourt PhD, Holly E. R. Morrell PhD, Patricia M. Flynn PhD
3. **Adaptation of Computer-Based Training for Cognitive Behavioral Therapy in Addictions Treatment with Latinos.** Michelle Silva PsyD, Luis Anez PsyD, Kathleen Carroll PhD, Brian Kiluk PhD, Samuel Ball PhD, Melissa Gordon BA, Manuel Paris PsyD
4. **Respondent-Driven Sampling among Sexual Minorities: Testing Innovative Sampling Methods for Rare Populations.** Jamie L. Klinger MA, Karen Trocki PhD, Laurie Drabble PhD
5. **Relationship Status Patterns and Substance Use: Comparison of Heterosexual and Sexual Minority Women.** Karen Trocki PhD, Jamie L. Klinger MA, Laurie Drabble PhD
6. **The Effects of Age, Sexual Sensation Seeking, and Alcohol on Determinants of Sexual Risk Among Men Who Have Sex with Men.** Dezarie Hutchison BA, Kaylin G. Cottone AA, Stephen A. Maisto PhD, Tibor Palfai PhD

## Co-Occurring Disorders

7. **Examining Changes in PTSD Alcohol Expectancies as a Predictor of Post-Treatment Drinking, Cravings, and PTSD symptoms among Veterans in a Substance Use Residential Rehabilitation Treatment Program.** Emma Siegel BA, Moira Haller PhD, Abigail Angkaw PhD, Peter Colvonen PhD, Brittany Davis PhD, Sonya Norman PhD
8. **Cessation Treatment Engagement for Psychiatric Inpatient Smokers with Comorbid Substance Use Disorders.** Madison Noble BA, David Lee BS, Carlo Mazzaferro BS, Annie Lei BS, David Strong PhD, Mark Myers PhD
9. **Co-Occurring Substance Use Disorders, Current Alcohol Use, and Level of Suicidal Ideation during Inpatient Psychiatric Hospitalization.** Sarah Schubmehl MA MEd, Melissa O'Donnell MS, Aquila Richardson MA, Jennifer Bielenberg MS, Gregory Katzen MS, Avivah McPherson MA, Samuel Barkin MA, David Sugarbaker MS, Doug Cort PhD
10. **The Impact of Depressive Symptoms and Substance Use Severity on Treatment Outcome in an Integrated Care Setting.** Emily Kaiser MA, Brian Sherman PhD, Carrie Wilkens PhD, Jeffrey Foote PhD, Nancy Haug PhD
11. **Gender Differences in the Indirect Effects of Childhood Trauma on Alcohol-related Problems through Anxiety.** Jasmine Eythrib, William R. Corbin PhD, Stephanie S. O'Malley PhD
12. **The Commitment to Quitting Smoking Scale: Initial Psychometric Examination for Smokers with Mental Illness.** Erick Idy BA, Timothy Chen PharmD, Mark Myers PhD

## Treatment

13. **Higher Rates of Readmission to Inpatient Psychiatric Hospitalization for Patients with Substance Use Disorders.** Melissa O'Donnell MS, Jennifer Bielenberg MS, Sarah Schubmehl MA MEd, Gregory Katzen MS, Raquel Osorno MS, Aquila Richardson MA, Avivah McPherson MA, Samuel H. Barkin MA, David Sugarbaker MS, Doug Cort PhD
14. **Tripping Therapists? Ethics in the Revival of Psychedelic Therapy for Addictive Disorders.** Elizabeth M. Nielson PhD
15. **The Relationship between Self-Efficacy and EMA Compliance in Drinking Reduction Outcomes.** Danusha Selva Kumar BA, Jessica Houser PhD, Sijing Shao MA, Jon Morgenstern PhD
16. **Patterns of Heavy Drinking During and Following Treatment: Stability and Change in the COMBINE Study.** Adam D. Wilson MS, Matthew R. Pearson PhD, Katie Witkiewitz PhD
17. **Mindfulness as a Mediating, Approach-Based Coping Style in the Trauma-Substance Abuse Cycle.** Aaron L. Bergman MA MS, Danielle De Boer BA, Sarah Bowen PhD

## College Student Substance Use and Interventions

18. **"Ignore the White Bear:" Associations between Experiential Avoidance, Coping, Norms, and Drinking among College Drinkers.** Dipali V. Rinker PhD, Clayton Neighbors PhD
19. **Passion for Religion, Perceived Stress, and Drinking.** Mary M. Tomkins MS, Clayton Neighbors PhD, Mai-Ly Steers PhD
20. **Expressive Writing as a Brief Intervention to Reduce College Student Drinking.** Lindsey Rodriguez PhD, Clayton Neighbors PhD
21. **Comparison of Retrospective and Daily Diary Reports of Alcohol Protective Behavioral Strategies.** Lizeth Cueto, Gabrielle M. D'Lima MS, Michelle L. Kelley PhD, Matthew R. Pearson PhD
22. **Subjective Intoxication Moderates the Association Between Protective Behavioral Strategies and Alcohol Problems.** Laura E. Hatz BS, Kayleigh N. McCarty BS, Edward J. Koenig, Denis M. McCarthy PhD

## Prescription Medications, Opioid Use, and Opioid Overdose Education

23. **A Glass Full of Liquor Helps the Medicine Go Down: Contraindicated Alcohol Consumption and Prescribed Medication Use.** Heather Krieger MA, Clayton Neighbors PhD
24. **The Impact of Pain Medication Policy on Opioid Use Trends.** Lauren A. Hoffman MS, Ben Lewis PhD, Sara Jo Nixon PhD
25. **Blending Public Policy, Public Interest, and Opioid Dependence: A Review of Literature and Directions for Future Research.** Brian Fitts MA
26. **Naloxone and Opioid Overdose Education on Twitter: Facilitating Community Engagement.** Lamisha S. Muquit BA, Sara Krasner MA, Jennifer Bielenberg MS, Steven H. Linder MD, Nancy A. Haug, PhD

# 2016 CPA SPEAKER BIOGRAPHIES

**JAMES ALLEN**, PhD, is Professor and head of the Department of Biobehavioral Health and Population Sciences, University of Minnesota Medical School, Duluth Campus. His research interests include Indigenous health and community resilience, culture and health, community-based participatory research, and multi-level community intervention.

**AMELIA ARRIA**, PhD, is the Director of the Center on Young Adult Health and Development at the University of Maryland School of Public Health and an Associate Professor in the Department of Behavioral and Community Health. Her research focuses on familial, social, and individual risk and resiliency factors associated with mental health and substance abuse among adolescents and young adults.

**ERIN BONAR**, PhD, is a clinical psychologist and Assistant Professor in the Department of Psychiatry and Addiction Center at the University of Michigan. She conducts research on the relationships between alcohol and drug use and other risk behaviors among both adolescents and adults. Her work also involves developing brief preventive interventions for reducing substance use across a range of settings.

**SARAH BOWEN**, PhD, is an Assistant Professor at Pacific University, in Portland, OR. Her research focuses primarily on mindfulness-based therapies for relapse prevention, with a specific focus on mechanisms of change. Dr. Bowen has facilitated MBRP groups in private and county treatment agencies, criminal justice institutions, and the VA, and offers trainings to researchers and clinicians in the U.S., Europe and Central America.

**SANDRA BROWN**, PhD, is Vice Chancellor for Research and a Distinguished Professor of Psychology and Psychiatry at UC San Diego. Dr. Brown is internationally recognized for her developmentally focused alcohol and drug research. Her research yielded pioneering information on adolescent addiction, relapse among youth, and long term outcomes of youth who have experienced alcohol and drug problems.

**ALAN BUDNEY**, PhD, is a Professor at the Geisel School of Medicine at Dartmouth. Over the last 25 years he has conducted extensive research on the development and evaluation of innovative behavioral treatments for substance abuse, specializing in cannabis use disorders in adults and adolescents. He is Past-President of Division 28 and the Society of Addiction Psychology.

**RAUL CAETANO**, MD, PhD, is Professor of Epidemiology in the School of Public Health and Dean in the University of Texas Southwestern School of Health Professions. His research focuses on the epidemiology of substance abuse by minorities. He serves on editorial boards of numerous addiction journals and is on advisory boards for community agencies.

**NATALIE CEBALLOS**, PhD, is an Associate Professor in the Department of Psychology at Texas State University. Her work has been funded by grants from NIAAA, INIA-Stress, and Humanities Texas. Her research focuses on disentangling the contributions of common factors that may accompany or predate the development of addictive behaviors.

**PETER COLVONEN**, PhD, received his Ph.D. in clinical psychology from University of Illinois, Chicago. He is currently a postdoctoral fellow at the Center of Excellence for Stress and Mental Health (CESAMH) in the VA San Diego. His research focuses on the dissemination and implementation of behavioral treatments for insomnia, substance use, and PTSD and the impact of treatment on veteran outcomes.

**ASHLEY DENNHARDT**, PhD, is currently completing an NIH-funded postdoctoral fellowship in the Department of Psychology at the University of Memphis. Her research interests include addictive behaviors, brief interventions and behavioral economic and affective factors that contribute to poor response to substance use interventions.

**DENNIS DONOVAN**, PhD, is the Director of the Alcohol and Drug Abuse Institute and Professor of Psychiatry and Behavioral Sciences at the University of Washington. His research examines substance abuse and mental health issues in American Indian and Alaska Native populations. He has collaborated with two tribal communities to culturally adapt, implement, and evaluate an empirically supported intervention for substance abuse prevention among Native youth.

**BRENNA GREENFIELD**, PhD, is a postdoctoral fellow at the University of Minnesota Medical School, Duluth campus. She received her PhD in Clinical Psychology from the University of New Mexico, where she completed an R36 dissertation study of substance use among Native American college students. Her work focuses on comorbidity of substance use disorders and other psychiatric conditions among Native Americans.

**WILLIAM GRIFFIN**, PhD, is an Associate Professor in the Addiction Sciences Division within the Department of Psychiatry at the Medical University of South Carolina. Dr. Griffin uses preclinical models and methods to examine how dependence on drugs, such as alcohol, stimulants or the combination, changes the brain to cause drug intake and drug seeking.

**MOIRA HALLER**, PhD, received a Ph.D. in clinical psychology from Arizona State University. She is currently in the VA San Diego's Interprofessional Advanced Fellowship in Addiction Treatment. Her research focuses on better understanding and treating individuals with substance use disorders and co-occurring PTSD and other psychopathology.

**LAUREN HOFFMAN**, MS, is a fifth year PhD candidate in the Behavioral and Cognitive Neuroscience Program within the University of Florida's Psychology Department. Her research concerns the psychosocial and neurobehavioral aspects of substance use disorders, particularly among treatment-seeking populations and understudied samples.

**TOM HORVATH**, PhD, is the founder of Practical Recovery and has served as President of SMART Recovery, an international, non-profit network of free, self-empowering, science-based support groups, face-to-face or online, for abstaining from any substance or activity addiction, for the past 18 years. Dr. Horvath is a past President of the Society of Addiction Psychology.

**MARK ILGEN**, PhD, an Associate Professor in the Department of Psychiatry at the University of Michigan. He has conducted a number of projects related to the treatment of substance use disorders, particularly for individuals suffering from comorbid chronic pain. Dr. Ilgen has also led a number of research projects seeking to inform and evaluate care related to opioid pain medications, pain, and suicide.

**EMILY LAW**, PhD, is an Assistant Professor in the department of Anesthesiology & Pain Medicine at the University of Washington School of Medicine. Dr. Law conducts research on the assessment of psychosocial and family risk in youth with chronic headache and other persistent pain problems, with a focus on developing internet-delivered prevention and intervention programs to reduce pain and disability.

**ROBERT LEEMAN**, PhD, is an Associate Professor in the Department of Health Education and Behavior at the University of Florida. His research examines relationships between various difficulties with self-control and addictive behaviors, particularly alcohol, tobacco and cocaine/opioid co-use. He tests novel interventions and attempts to learn more about risk factors for problem substance use in adolescent and young adult populations.

**ADAM LEVENTHAL**, PhD, is a clinical psychologist and Associate Professor of Preventive Medicine and Psychology and Director of the University of Southern California Health, Emotion, & Addiction Laboratory. His research incorporates epidemiology and psychopharmacology to understand how the addictive properties of drugs vary across populations and contexts.

**CECILE MARCZINSKI**, PhD, is an Associate Professor in the Department of Psychological Science at Northern Kentucky University. She is a Fellow of APA Divisions 28 (Psychopharmacology and Substance Abuse) and 50 (Society of Addiction Psychology). Her research examines the risks of combining alcohol and energy drinks using human laboratory-based models.

# 2016 CPA SPEAKER BIOGRAPHIES

**LIDIA MESHESHA, MS**, is currently a fourth-year student in the Clinical Psychology Doctoral program at the University of Memphis. She is a member of the Health Addiction and Behavioral Intervention Team (HABIT) laboratory, which conducts applied research on substance use, and health risk behaviors. Her research interests include alcohol and illicit drug misuse, behavioral economics, and brief motivational interventions.

**KATE MILLER, PhD**, is a Senior Research Scientist in the University at Buffalo's Research Institute on Addictions. Her research interests focus on key causes, correlates, and consequences of substance use and other health-compromising behaviors in adolescents and emerging adults, including alcohol mixed with energy drink use, problem drinking, sexual risk-taking, and aggression.

**JAMES MURPHY, PhD**, is a Professor of Psychology and Director of the Health Addiction and Behavioral Intervention Team (HABIT) laboratory at the University of Memphis. He has conducted numerous federally funded clinical trials of brief motivational interventions for college student drinkers. Dr. Murphy's research explores behavioral economic predictors of substance abuse problem severity, treatment outcome, and mechanisms of behavior change.

**SARA JO NIXON, PhD**, is a Professor of Psychiatry and Psychology, Co-Vice Chair and Chief of Addiction Research in the Department of Psychiatry, Co-Director of the Center for Addiction Research and Education, and Director of the Neurocognitive Laboratory at the University of Florida. Her research examines neurobehavioral concomitants of substance use disorder, and effects of sex, age, minority status.

**SONYA NORMAN, PhD**, is currently an Associate Professor of psychiatry at UCSD and Director of the PTSD Consultation Program for the National Center for PTSD. Her research is in treating PTSD and co-morbid conditions (such as substance use disorders), and understanding mechanisms underlying PTSD and common comorbidities. She has grants funded by NIH, VA, and DoD.

**ALISON PICKOVER, MS**, is a student in the Clinical Psychology Doctoral program at the University of Memphis. She is a member of the Health Addiction and Behavioral Intervention Team (HABIT) laboratory, which conducts applied clinical research on substance use, and other health risk behaviors. Her research focuses on executive function and emotion regulation in the initiation and maintenance of substance use disorders among adolescents and young adult populations.

**STACY RASMUS, PhD**, is a Research Associate Professor in the Institute of Arctic Biology and Center of Alaska Native Health Research at the University of Alaska Fairbanks. Her research examines the intersections between culture, health and wellbeing in the development of indigenous theory-driven interventions to reduce health disparities.

**SUSAN TAPERT, PhD**, is Professor of Psychiatry at the University of California, San Diego, a licensed clinical psychologist, and the Chief of Psychology Service at the VA San Diego Healthcare System. Dr. Tapert's primary research interests are in the neural substrates of alcohol and substance use disorders in adolescence and young adulthood using magnetic resonance imaging, diffusion tensor imaging, and neuropsych testing.

**JENNI TEETERS, MS**, is currently a fourth year student in the Clinical Psychology Doctoral program at the University of Memphis. She is a member of the Health Addiction and Behavioral Intervention Team (HABIT) lab, which conducts applied research on substance use, and health risk behaviors. Her research interests include substance abuse, behavioral economics, and substance-impaired driving.

**CHRISTINE TIMKO, PhD**, is a Senior Research Career Scientist, Health Services Research and Development Service, Department of Veterans Affairs; and Consulting Professor, Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine. At the Center for Innovation to Implementation in Menlo Park, her interests are developing and implementing evidence-based practices and improving services for veterans in the criminal justice system.

**J. SCOTT TONIGAN, PhD** is a Research Professor at the Center on Alcoholism, Substance Abuse, and Addictions at the University of New Mexico. His research examines the efficacy of 12-step programs and the mechanisms accounting for 12-step related benefit. Dr. Tonigan's health disparity research has been conducted in several contexts including randomized behavioral clinical trials and single-group naturalistic studies.

**RYAN TRIM, PhD**, is an Associate Professor in the Department of Psychiatry at UCSD and he is the Director of the Substance Abuse/Mental Illness Clinic at the VA San Diego. His research focuses on the impact of individual and environmental risk factors on substance use and related high-risk behaviors across the lifespan. His research has been funded by NIH, VA, DoD, and ABMRF.

**JALIE TUCKER, PhD, MPH**, is Professor and Chair of the Department of Health Education and Behavior at the University of Florida and director of the UF Center for Digital Health and Wellness. She conducts community-based research guided by behavioral economics that aims to inform risk reduction and prevention strategies in problem drinkers attempting natural recovery, rural substance users living with HIV/AIDS, and disadvantaged emerging adults. She is a past President of the Society of Addiction Psychology.

**KAMILA VENNER, PhD**, is an Assistant Professor of Psychology at the University of New Mexico. Her work aims to decrease health disparities among American Indians/Alaska Natives and promote cultural strengths. She is interested in the process and outcome of cultural adaptations of evidence-based treatments and enjoys working in partnership with tribes.

**DENISE WALKER, PhD**, is a Research Associate Professor at the School of Social Work at the University of Washington. Her research focuses on development, testing and implementation of interventions that bring about positive changes in patterns of behavior with a specific emphasis on Motivational Interviewing interventions, treating cannabis use disorders for both adolescents and adults, and military populations.

**DENNIS WENDT, PhD**, is a postdoctoral fellow with the Department of Psychiatry and Behavioral Sciences at the University of Washington School of Medicine and the Alcohol and Drug Abuse Institute. His primary research interests pertain to evidence-based treatment implementation (especially for substance use disorders) and culturally-centered interventions (especially for AI/ANs).

**CLAIRE WILCOX, MD**, is an Assistant Professor in the Department of Psychiatry at the University of New Mexico. Her research goals are to identify mediators and moderators of treatment effect during treatment for substance use disorders, with an emphasis on drug cue reactivity, emotion regulation/stress reactivity, and cognitive/impulse control. She currently studies the neural mechanisms of change during the treatment of alcohol use disorders with prazosin.

**KATIE WITKIEWITZ, PhD**, is an Associate Professor of Psychology at the University of New Mexico and a licensed clinical psychologist. Her research focuses on the efficacy of mindfulness-based relapse prevention and other cognitive behavioral interventions as treatments for substance use disorders, prediction of relapse following treatment for alcohol and drug use disorders, and mechanisms of behavior change.

**MATTHEW WORLEY, PhD, MPH**, completed his Ph.D. and MPH. through the UCSD/SDSU Joint Doctoral Program in clinical psychology. He is currently an Assistant Professor of psychiatry at UCSD and staff psychologist at the VA San Diego. His research examines prescription opioid abuse in chronic pain, and individual differences in treatment response for substance use disorders.

**SARAH ZEMORE, PhD**, is a senior scientist, Center Associate Director, and Co-Director of the Training at the Alcohol Research Group as well as an Associate Adjunct Professor at the University of California, Berkeley. Her research focuses on treatment motivation, treatment efficacy, recovery from addictions, and she has conducted numerous studies related to affiliation with, and efficacy of, 12-step groups. She also has an established and strong record of research on alcohol-related disparities.



## Friday March 18 1:15 – 2:15 PM

**Drinking, Binge Drinking and Alcohol Related Problems among U.S. Hispanics.** Dr. Raul Caetano will be speaking about the diversity of drinking that exists among United States (U.S.) Hispanics by describing data on drinking, binge drinking and alcohol related problems for Puerto Ricans, Cuban Americans, Mexican Americans, and South Central Americans from three epidemiological projects conducted between 2006 and 2015. Results show that Puerto Ricans and Mexican Americans consume a higher number of drinks per week, and have a higher rate of alcohol use disorder than Cuban American and South Central Americans. Birthplace in the U.S. and high acculturation are also associated with a higher rate of alcohol use disorder. Young Mexican Americans (18-29 years of age) on the border consume more drinks per week and binge more frequently than their counterparts off the border. Attendance to bars plays an important part in this drinking and is strongly associated with the development of alcohol-related problems. Finally, while mean weekly consumption of alcohol is not different across Puerto Ricans on the island as compared to the U.S. born Puerto Ricans and immigrants, the U.S. born have a higher rate of alcohol use disorder, binge drinking and social health alcohol problems than the other two groups. **Raul Caetano MD, PhD**

## Friday March 18 2:15 – 3:30 PM

**Community-based Culturally-Adapted Substance Use Disorder Interventions for American Indians and Alaska Natives.** Enormous substance use disorder (SUD) and other health disparities exist for American Indians/Alaska Natives (AIANs), and yet clinical trials rarely comprise AIAN samples. Moreover, adapting evidence-based interventions for AIANs can be extremely complex, due to inter-tribal diversity as well as cultural discordance experienced by many AIANs with Western interventions. In this symposium, presenters will discuss processes and outcomes for successful, culturally-adapted SUD prevention and treatment interventions with culturally and geographically diverse AIAN communities, based on community-based participatory research. First, Dennis Donovan (University of Washington) will present on Healing of the Canoe, a prevention intervention that was adapted for several Northwest tribes. Second, Kamilla Venner (University of New Mexico) will present on a randomized clinical trial for an adaptation of motivational interviewing and community reinforcement approach therapies for a Southwest tribe. Third, Stacy Rasmus and Billy Charles (University of Alaska, Fairbanks) and James Allen (University of Minnesota) will present on Qungasvik (toolbox), a universal preventative cultural intervention for rural Yup'ik Alaska Native communities. Finally, Dennis Wendt (University of Washington) will discuss complexities with cultural adaptations for multi-tribal urban-dwelling AIANs. **Dennis Donovan PhD, Kamilla Venner PhD, Stacy Rasmus PhD, Billy Charles, James Allen PhD, and Dennis Wendt PhD**

## Friday March 18 3:45 – 5:00 PM

**Community-based 12-Step Programs and Disenfranchised Substance Users: A Critical Appraisal of the Attractiveness and Benefits of 12-Step Participation.** More people go to community-based 12-step programs than to formal treatment for help with substance use problems, and most treatment providers in the United States encourage 12-step attendance as an adjunct to treatment and as aftercare. Strong evidence suggests that the popularity of mutual-help programs in the United States is justified (for many, but not all substance abusers) although findings are mixed about the attractiveness and usefulness of 12-step programs for disenfranchised substance abusers. This symposium will offer four NIH funded perspectives to assess the flexibility and merit of community-based 12-step programs in addressing the needs of underserved substance abusers and their family members. First, Dr. Tonigan will present a recently completed (and unpublished) meta-analytic summary of the affiliation patterns and substance use outcomes of dually diagnosed adults attending 12-step programs. Dr. Wilcox will then present new findings on the associations between 12-step attendance and depression, when and if improvements in negative affect mediate the effect of AA on drinking, and how, if at all, levels of depression at the initiation of AA attendance may moderate the salutary and later effects of AA. Dr. Sarah Zemore will then describe results from an ongoing, national study comparing mutual help group involvement and efficacy across 12-step groups and 12-step alternatives; analyses will focus on how respondent socioeconomic status and other baseline characteristics relate to mutual help group and satisfaction across group types. Finally, Dr. Christine Timko will present findings from a longitudinal study of Al-Anon, focusing on the benefits of participation for groups that are generally underrepresented in Al-Anon, such as men and members of racial and ethnic minority groups. **Scott Tonigan PhD, Claire Wilcox MD, Sarah Zemore PhD, and Christine Timko PhD**

**Contributions from Psychology to Understanding and Promoting Low Risk Drinking.** Research on what predicts and supports low risk drinking lags behind research on its population incidence and prevalence and health benefits. Although low risk drinking definitions vary, the phenomenon is reliable in the general population and among a subset of persons with alcohol use disorders who do and do not seek treatment. It is a preferred drinking goal for many with alcohol-related problems and an attainable one for some. This symposium will examine positive contributions from psychology to understanding and promoting low risk drinking that have accrued since early treatment studies documented the then-controversial phenomenon. Revisiting the issue has relevance for increasing the appeal, effectiveness, and population impact of a spectrum of alcohol-related services for different population segments, including underserved groups. **Jalie Tucker PhD MPH, Sara Jo Nixon PhD, Robert Leeman PhD, and Sandra Brown PhD**

# Meeting Abstracts: Symposia

## Saturday March 19 8:30 AM – 9:15 AM

**Update on SMART Recovery: Science-based, Self-Empowering Mutual Help.** SMART Recovery (Self Management And Recovery Training), an international non-profit established in 1994, has become the largest self-empowering addiction recovery mutual help group. Over half of SMART meetings occur in the US. SMART materials are available in seven other languages. SMART teaches “tools for recovery” which are based on CBT and MI interventions and suitable for peer led meetings. SMART has attracted ongoing investigation, including comparison of SMART with the 12-step approach. SMART appears to be most suitable for individuals with an internal locus of control, whereas the 12-step approach is more suitable for an external locus of control. There are “dual citizens” who participate in both groups. Presentation will overview 1) the SMART approach (including the SMART tools for recovery, the applicability of SMART for co-morbidity and the underserved population of individuals with internal locus of control, the SMART meeting as one example of social support, and SMART’s potential to disseminate aspects of evidence-based addiction treatment, 2) the organization and its history (including the processes for training meeting leaders), and 3) the scientific work on SMART. **Tom Horvath PhD, ABPP**

**The Sociopharmacology of Health Disparities in Addiction.** Efforts to reduce the public health burden of drug use have not equally benefited all members of society, leading to population-level disparities in addiction. Transdisciplinary models are needed to comprehensively understand sources of addiction-related health disparities (ARHD), yet they are rarely applied in ARHD research. This talk proposes a novel transdisciplinary paradigm for studying ARHD called “sociopharmacology.” Sociopharmacology is a platform for investigating how population-level sociocontextual factors amplify person-level psychopharmacological determinants of drug use to disproportionately enhance addiction vulnerability in populations subject to ARHD. In this presentation, I describe: (1) sociopharmacology’s overarching methodology and theoretical framework; (2) two conceptual models that apply sociopharmacology to understand mechanisms underlying ARHD; (3) the results of empirical research studies that provide initial support for the tenets of sociopharmacology by documenting that women (vs. men), African-Americans (vs. Whites), people of low (vs. medium or high) socioeconomic status, and people with (vs. without) mental health conditions differ in the sensitivity to and salience of the acute reinforcing effects of drug use. The talk concludes with a discussion of how sociopharmacological approaches may enhance the public health impact of basic psychopharmacology research and how understanding sociopharmacological mechanisms of ARHD could ultimately translate into interventions that reduce ARHD. **Adam M. Leventhal PhD**

## Saturday March 19 9:30 AM – 10:45 AM

**The Role of Race, Ethnicity, and Related Factors in Substance Use Patterns.** Although the role of race/ethnicity in substance-use patterns and behaviors is often acknowledged, it is seldom examined more critically. This session explores the drug- and alcohol-use behaviors of diverse racial/ethnic groups in treatment and in the general community. Ms. Hoffman will discuss differences between African American and Caucasian treatment seekers in drug- and alcohol-use patterns, quantity, frequency, milestones (e.g., age at initial use) and rapidity of progressions through milestones. Drs. Ceballos and Greenfield will discuss factors related to substance-use behaviors in minorities during periods of high risk for initiation of problem use. Dr. Ceballos will describe two studies of Latino college students (in the US and Mexico); Data concern measures of acculturation and their ability to predict alcohol consumption, and the relationship between alcohol use, expectancies, and attentional biases among Latinas and Non-Hispanic White women. Dr. Greenfield will discuss drug- and alcohol-use behaviors (prevalence, quantity/frequency) among Native American community college students, and relationships between substance use and experiences of discrimination. Discussion will emphasize the importance of acknowledging race/ethnicity and related factors in substance-use research, prevention and treatment. Commonalities in the effects of race/ethnicity and related factors across both treatment-seeking and non-problem substance using community members will also be explored. **Lauren Hoffman MS, Natalie Ceballos PhD, Brenna Greenfield PhD, and Sara Jo Nixon PhD**

**New Evidence of the Risks of Mixing Alcohol and Energy Drinks and the Implications for Public Policy.** Converging evidence from different disciplines illustrates that the use of alcohol mixed with energy drinks (AmED) is riskier than alcohol alone. Epidemiological studies reveal that the consumption of energy drinks (ED) and AmED is prevalent among adolescents and young adults, demographic groups that disproportionately experience the harms and hazards associated with alcohol use. Elevated rates of binge drinking, impaired driving, risky sexual behavior, and risk of alcohol dependence have been associated with AmED use when compared to alcohol alone. Presentations in this translational symposium will highlight new findings from both human and animal studies incorporating a variety of methodological approaches that report: 1) energy drinks increase the rewarding properties of alcohol, 2) new evidence of heightened risks associated with the use of AmED and ED, 3) findings related to potential explanatory mechanisms, and 4) presentations will reveal that AmED use is associated with heightened incidences of aggression and elevated risk of psychological disorders such as depression. Given these new findings in addiction science, the options for possible public policy responses will be discussed. **Cecile Marcinski PhD, Amelia Arria PhD, Kate Miller PhD, William Griffin PhD, and Erin Bonar PhD**

# Meeting Abstracts: Symposia

## Saturday March 19 11:00 AM – 12:15 PM

**Evaluating Treatment Outcomes for Veterans with Concurrent Substance Use and Psychiatric Disorders.** The growing veteran population in the United States is at increased risk for both substance use problems and co-occurring psychopathology including PTSD and depression. This symposium will review outcome data from a series of novel clinical therapy trials (2 completed studies, 1 in progress) conducted at the San Diego VA over the past 15 years. Dr. Trim will provide an overview on this high-risk population and detail how these research projects have been integrated into an existing VA specialty mental health addictions clinic. Drs. Brown, Haller, and Colvonen will present separately on the interventions used in each of these three projects (including variations of 12-Step Facilitation, Integrated CBT, Cognitive Processing Therapy, Seeking Safety, Relapse Prevention and Prolonged Exposure), and they will highlight the primary (or preliminary) findings related to substance use and mental health outcomes. The presenters will also review significant predictors and moderators of treatment effectiveness (including treatment attendance, symptom severity, and recovery environment). The discussant, Dr. Norman, will provide summary remarks on the implications of this line of research for addictions-focused interventions and outline potential areas for future exploration with this population. **Ryan Trim PhD, Sonya Norman PhD, Brittany Davis PhD, Sandra Brown PhD, Peter Colvonen PhD, and Moira Haller PhD**

## Saturday March 19 2:15 PM – 3:30 PM

**Recent Advances in Young Adult Substance Abuse Prevention.** This symposium will examine new approaches for substance abuse prevention among young adults. Alison Pickover examines the relationship between neurocognitive functioning and alcohol use, AUD symptoms, and craving, and the moderating role of sex, in a sample of young adult drinkers. Facets of neurocognitive functioning were associated with AUD symptoms and craving, and emotional regulation in particular had a conditional indirect effect on alcohol consumption via elevated craving for females, but not males. Lidia Meshesha describes a behavioral economic paradigm to measure deficits in the hedonic value of drug-free rewards in an ethnically diverse sample of young adult incipient prescription opiate users. At baseline, opiate use was associated with lower valence ratings for objectively pleasant images. At six-month follow up, opiate use reduced for all racial groups, however, ethnic minorities had greater opioid related problems compared to whites despite reducing use. Jenni Teeters reports novel findings related to substance-impaired driving including identifying elevated substance demand as a risk factor and that brief interventions appear to reduce this risky behavior. James Murphy describes a brief behavioral economic intervention that attempts to increase engagement in patterns of substance-free activities associated with future reward. Ashley Dennhardt examines the role of psychiatric comorbidity as a moderator of the effects of a brief behavioral economic intervention targeting young adult drinking and drug use. This intervention appears to be particularly useful for reducing drinking and alcohol-related problems in students with higher depression scores. **James Murphy PhD, Ashley Dennhardt PhD, Lidia Meshesha MS, Alison Pickover MS, and Jenni Teeters MS**

**More than opioids alone: The effects of problematic substance use in chronic pain.** Significant attention has been paid to the complexity surrounding opioid use in chronic pain. For example, their potential for both benefit and harm is well-documented. Yet, problematic substance use in chronic pain involves more than opioids alone and information on the prevalence and impact of non-opioid substance misuse is needed. First, Dr. Law will present a comparison of adolescents with and without chronic pain with regard to frequency and impact of alcohol and tobacco use. Second, Dr. Witkiewitz will describe the association between pain and alcohol treatment outcomes across two large multi-site treatment trials for alcohol use disorder. Finally, Dr. Ilgen will detail the 12 month outcomes of an RCT for those with chronic pain and substance use disorders. While substance use in chronic pain remains a complex issue, this symposium is organized to provide direct guidance for clinicians, researchers, and policy makers working by providing information on scope, impact, and available data. **Katie Witkiewitz PhD, Kevin Vowles PhD, Emily Law PhD, and Mark Ilgen PhD**

## Saturday March 19 3:45 PM – 4:45 PM

**Neuroimaging Findings in Youth: Does Teenage Substance Use Harm the Brain?** Alcohol and marijuana use are common in adolescence, and rates of binge drinking remain high. Dr. Tapert will describe longitudinal neuropsychological and brain imaging studies that focus on adolescent substance use. Results indicate that subtle but significant changes appear to onset after heavy alcohol use has initiated, particularly on visuospatial, learning, memory, and working memory tasks. Heavy marijuana use has also been linked to increased error commission and poorer learning of new information, but this appears to improve with abstinence. Neuroimaging studies show accelerated thinning of gray matter and attenuated growth in white matter for boys and girls who initiate alcohol use during adolescence, when gray matter typically thins and white matter typically grows. Results suggest that, as the brain continues to develop into young adulthood, it may be particularly vulnerable to the effects of heavy doses of alcohol and other substances. We will also examine the role of the media in alcohol use decisions of young people and discuss implications for prevention. **Susan Tapert PhD**

**Friday March 18 5:30 PM – 7:00 PM**

- 1. Explanatory Models of Alcohol Sobriety and Treatment in an Urban Alaska Native Context.** This paper will describe and compare cross-stakeholder explanatory models of alcohol sobriety and treatment in an urban Alaska Native healthcare system. Five focus groups with diverse health care providers and 38 interviews with health system leaders and Alaska Native American Indian (ANAI) people were conducted to elicit beliefs about key factors of alcohol use and misuse, sobriety and treatment. Results indicate that treatment is perceived as a clinical program that occurs in the health care setting, while recovery is viewed as an ongoing process in the community context and requires additional resources. Effective treatment and recovery processes, as well as achievement and maintenance of sobriety, require the integration of ANAI cultural values and social support, as well as awareness of the complex, interrelated causes of alcohol misuse ranging from personal stress and self-efficacy to historical trauma and colonization. This study, funded by the Native American Research Centers for Health will inform development and delivery of alcohol treatment services for ANAI people in Alaska and advance the field of addiction science. **Lisa Dirks MLIS MAdm, Jennifer Shaw PhD, Denise Dillard PhD, Susan B. Trinidad MA, Wylie Burke MD PhD, Evette Ludman PhD**
- 2. A Randomized Community Trial to Reduce Use of Harmful Legal Products to Get High Among Adolescents in Frontier Alaska.** We conducted a randomized community trial involving family, school, and retailer interventions to reduce access to and use of harmful legal products (HLPs) to get high by adolescents in frontier Alaska communities. 18 communities, including 10 predominately Alaska Native communities, were matched and randomly assigned to intervention or control. Data were obtained from adolescents (N=1,774) using in-school surveys (5th, 6th, 7th grade at Wave 1) administered on two occasions two years apart. We used multi-level logistic regressions to investigate intervention effects on self-reported lifetime use of HLPs, alcohol, tobacco, and marijuana. Covariates included community (e.g., % Alaska Native, population, % in poverty) and individual (e.g., gender, Alaska Native, White) factors. No intervention effects were found for prescription drugs, inhalants, or overall HLPs use. A significant effect was found for common household products (OR=.27), indicating greater decreases in use in intervention communities. Although not targeted, growth in smokeless tobacco and marijuana use was significantly slower in intervention communities. Intervention effects on HLPs use were marginal and confounded by recanting at the second survey wave. The interventions may have reduced smokeless tobacco and marijuana use, although these findings should be interpreted cautiously. **Joel W. Grube PhD, Kristen Ogilvie PhD, Knowlton W. Johnson PhD, Stephen R. Shamblen PhD, David Collins PhD, Lisa Dirks MLIS, Kirsten Thompson MA**
- 3. Abstinence Self-Efficacy and Past-Month Drinking Days Among Native American College Students.** Abstinence self-efficacy (ASE) is negatively related to drinking among college students. College student ASE are shown to vary in relation to: gender, alcohol expectancies and social context (Covault et al., 2007). To date, no data are available examining ASE of Native American (NA) college students. Thus, the present study examined ASE, ethnicity, and past-month drinking days (PMDD) in a sample of NA and non-Hispanic White (NHW) college students. Data were collected as part of a larger study examining psychological functioning and drinking in a sample of 258 (41.1% male) NA and NHW college students. A linear regression was conducted to predict PMDD from ASE, ethnicity, and their interaction. The overall model was significant ( $F(3, 249)=40.383, p<.000$ ), explained 32.7% of variance in PMDD. The interaction term wasn't significant, however, ASE and ethnicity were significantly related to PMDD. Higher ASE was negatively related to PMDD ( $b=-.03, p<.000$ ). NAs had significantly less PMDD than NHWs ( $b=-.31, p<.038$ ). Thus, alcohol research for college students should focus on the lower NA drinking norms as compared to NHW to counteract erroneous negative stereotypes about NA drinking in college samples. **Violette Cloud BA, Kamilla Venner PhD, Kyle Hagler MS**
- 4. Impact of Ethnic Composition on Mechanisms of Change in School-Based Substance Use Prevention Groups.** Offering alcohol use intervention services at schools is a key approach to engaging youth, particularly underserved populations, in such programming. Progress has been made toward implementing culturally responsive interventions, however, little is known about the role of ethnic group composition on processes purported to underlie mechanisms of change. We examined associations between ethnic group composition and therapeutic processes within a voluntary, school-based alcohol use intervention at seven schools across three cities (n groups=353). Ethnic composition was characterized as: group ethnic diversity on a continuum, group ethnic homogeneity (i.e. where at least 66% of participants shared the same ethnicity), and group comparisons where one of the three largest ethnicities in the sample reached the majority (i.e. African-American vs. Hispanic vs. non-Hispanic White). Ratings on group processes were obtained from participants (satisfaction; belonging), facilitators (empathy; rapport), and coders (engagement; responsiveness). Mixed-effects models revealed that students in groups with African-American and Hispanic majorities reported a higher sense of satisfaction compared to groups with White majorities. Facilitators endorsed expressing empathy more frequently with majority African-American and Hispanic groups than with White groups. Study findings highlight the importance of considering different dimensions of ethnic composition when examining mechanisms of change in intervention research. **Guadalupe Bacio PhD, Kristin Tomlinson PhD, Tracey Garcia PhD, Kristen Anderson PhD, Sandra Brown PhD, Mark Myers PhD**
- 5. Microaggressions, Ethnic Identity, and Alcohol Problems.** This research examined the relationships between racial-ethnic microaggressions, ethnic identity, alcohol consumption, and alcohol problems in a sample of ethnic minority college students. The study sample included 99 college students of color from two predominantly White universities. Participants completed self-report measures of experiencing microaggressions in the past month, measures of alcohol involvement (Daily Drinking Questionnaire, Rutgers Alcohol Problem Index), a measure of ethnic identity (Multigroup Ethnic Identity Measure), and measures of mental health (Beck Depression Inventory, Beck Anxiety Inventory). Microaggressions in the past month were significantly associated with greater alcohol problems, greater anxiety, and greater depression scores. Microaggressions were related to greater alcohol problems but not alcohol consumption. Findings also showed that ethnic identity and microaggressions were positively associated with each other. That is, the more an individual identified with their ethnic group, the more microaggressions they perceived. Further research is needed to examine how factors such as the extent to which someone physically resembles their ethnic group may be associated with both microaggressions and ethnic identity. Also, research is needed to examine the mechanism by which microaggressions may result in greater alcohol problems among college students of color. **Monica Skewes PhD, Art Blume PhD**
- 6. Attachment Dimensions, Substance Use Severity, and Psychological Distress among Adults with Co-Occurring Disorders.** This study investigated the relationships among attachment dimensions, substance use severity, and psychological distress in a co-occurring disorders (COD) population. We hypothesized that attachment anxiety and attachment avoidance, as measured by the Experiences in Close Relationships-Revised (ECR-R) questionnaire, would be positively associated with substance use severity, as measured by the Addiction Severity Index (ASI), and psychological distress, as measured by the Symptom Checklist-90 (SCL-90). We also hypothesized that substance use severity would be positively associated with psychological distress. 184 participants completed the measures as part of an outpatient treatment program for COD. There was a significant positive relationship between attachment anxiety and alcohol use severity ( $r=.26, p<.001$ ) and drug use severity ( $r=.14, p<.04$ ). In addition, attachment anxiety and avoidance were significantly and positively correlated with psychological distress ( $r=.32, p<.001$  and  $r=.27, p<.001$ , respectively). Other hypotheses were not supported. These findings provide partial support for the focus on interpersonal functioning in the treatment of individuals with COD. Our findings also suggest that treatment for individuals with COD should be uniquely tailored on the basis of such variables as attachment and type of substance(s) used. **Robert Teel MA, Mark Teles MA, Austin Slade MA, Patricia Judd PhD**



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- 7. Exploring Pre-Treatment Differences between Residential and Outpatient Programs for Veterans with Alcohol Use Disorders and Comorbid Combat-Related PTSD.** Both residential and outpatient treatment programs are available to Veterans seeking treatment for alcohol use disorders (AUDs) through the VA Healthcare System, including Veterans with comorbid PTSD. The present study examined whether Veterans in residential and outpatient programs differed on pre-treatment measures of PTSD, depression, insomnia, addiction, or demographics. Participants included 103 Veterans in residential treatment, and 76 Veterans in outpatient treatment through a research study. All Veterans were diagnosed with both AUD and combat-related PTSD. Exploratory chi-square and t-test analyses indicated that, as compared to Veterans in outpatient treatment, residential Veterans had significantly higher PTSD symptoms, insomnia severity, frequency of drug use, and days in high-risk situations for using alcohol/drugs. Residential participants also reported significantly lower satisfaction with recovery goals, confidence in ability to be abstinent, attendance at self-help meetings, and contact with supportive family/friends. Residential participants were also more likely to be married, whereas outpatient participants were more likely to be divorced. Finally, residential participants were more likely to be non-Hispanic Caucasian rather than minority ethnicities. Residential and outpatient participants did not differ on drinking (frequency of use, bingeing, or craving), arguments with family/friends, days at work/school, depression, age, or gender. Implications for services will be discussed. **Moirra Haller PhD, Rebecca Bogner, Brittany Davis PhD, Peter Colvonen PhD, Ryan Trim PhD, Sonya Norman, PhD**
- 8. Examining the Relationship between Substance Use Severity, Functional Impairment, and PTSD Treatment Outcomes in Veterans.** Substance use disorders (SUDs) occur in as many as 75% of combat Veterans with PTSD. Veterans with PTSD and SUDs report higher functional impairment than those with just one disorder. Yet, little is known about the relationship between SUDs, functional impairment, and changes in PTSD symptoms in Veterans receiving PTSD and SUD treatment. This study examined the relationship between SUD, functional impairment, and PTSD in 42 Veterans (Age=40.88±11.98; 95.2% male) on a PTSD track of a residential SUD unit. Aim 1 examined whether substance use and functional impairment at program entry were related to PTSD symptoms at program discharge. Aim 2 examined whether changes in PTSD symptoms from baseline to follow-up were associated with improvements in functional impairments at a 3-month post-discharge follow-up. Neither SU nor functional impairment at program entry predicted changes in PTSD symptoms. Improvement in PTSD symptoms from program entry to follow-up predicted improved functional impairment in the subscales of participation in communication ( $\beta=.72$ ,  $p=.000$ ); mobility ( $\beta=.39$ ,  $p=.05$ ); getting along with others ( $\beta=.56$ ,  $p=.01$ ); household activities ( $\beta=.52$ ,  $p=.01$ ), and work activities ( $\beta=.52$ ,  $p=.01$ ); there was no relationship with self-care. Improvement in PTSD symptoms may generalize to improvements across several domains. **Alex Guendert BA, Peter Colvonen PhD, Sonya Norman PhD, Brittany Davis PhD**
- 9. Lower Education, Younger Age, Male Sex, and PTSD Severity Are Related to Alcohol Misuse in OEF/OIF/OND Veterans.** Alcohol misuse is prevalent among combat veterans, but there is a scarcity of research on demographics linked to alcohol misuse in veterans. This exploratory study examined correlates of alcohol misuse in a sample of OEF/OIF/OND combat veterans. Participants were 204 VAMC patients (87% male; 54% White) from two samples [heavy drinkers ( $n=68$ ); general sample ( $n=136$ )]. AUDIT severity was significantly higher in the heavy drinking group, and in the general sample 25% screened positive for hazardous drinking (AUDIT>7). AUDIT severity was associated with lower education, younger age, Caucasian ethnicity, male sex, and increased PTSD severity but was not associated with military branch, income, or relationship status. This was unexpected, as prior research has found differences in alcohol misuse between military branches. A hierarchical multiple regression including all significant associated variables found that after adjusting for the sample, education level ( $B=-.13$ ,  $p=.03$ ), age ( $B=-.15$ ,  $p=.02$ ), sex ( $B=-.14$ ,  $p=.02$ ), and PTSD severity ( $B=.34$ ,  $p<.001$ ) remained statistical predictors of AUDIT severity,  $R^2=.17$ ,  $F(5, 172)=10.14$ ,  $p<.001$ . Findings indicate that several demographic variables and PTSD severity may be associated with alcohol misuse in OEF/OIF/OND veterans. Clinicians should screen for heavy drinking in veterans presenting with these characteristics. **Jessica Tripp MS, Meghan E. McDevitt-Murphy PhD, Megan L. Avery PhD**
- 10. Substance-Related Findings from Randomized Controlled Trials of Treatments for PTSD.** Individuals with PTSD are 4.3 times more likely to have a substance use disorder, making it important to address issues of substance use status in PTSD research. Accordingly, we sought to address the extent to which participants enrolled in clinical trials were representative of the broader PTSD population with regard to substance use. Specifically, we evaluated relationships between substance use status and PTSD outcomes and the extent to which participants were excluded due to substance use. We utilized a meta-analysis covering studies published through April 2012. From these articles ( $k=112$ ), we extracted substance-related exclusion and inclusion criteria, as well as findings related to substance use as a predictor or outcome variable. We found that 74% of clinical trials reported excluding participants based on substance use status only. In addition, only 6% of studies reported any results involving substance use as a predictor or outcome. Thus, a considerable portion of the PTSD population has been understudied, limiting our knowledge of which treatments are efficacious among the larger, heterogeneous patient population. It is important to continue to consider the competing need to avoid potential confounds versus recruiting samples that accurately represent clinical populations. **Tessa Frohe BA, Robert Leeman PhD, Kathryn Hefner PhD, Mehmet Sofuoglu PhD**
- 11. Social Network Site Participation in a Clinical Sample of Emerging Adults with Substance Use Disorder.** Emerging adults (EAs; ages 18-25) have poorer substance use disorder (SUD) treatment outcomes than both younger and older treatment seekers. National data show EAs are immersed in social network sites (SNSs; e.g., Facebook), which may offer contemporary avenues to enhance their treatment engagement and outcomes. However, little is known about SNS participation among EAs in SUD treatment. To address this gap, the current study surveyed EAs who presented for evaluation in an outpatient SUD treatment program ( $N=51$ ; M age=22; 80% White; 65% male). Virtually all (96%) identified as an SNS member/user and 92% reported past month participation. Among these 49 member/users, 84% logged in daily, while 86% were exposed to (i.e., not actively seeking) alcohol or drug content, and 38% had increased cravings due to exposure. Regarding potential benefits, 68% sought content related to treatment, recovery, or health on SNSs and, among health seekers, 79% reported increased motivation to abstain from, or to moderate, substance use. Even mere exposure to such content may increase motivation for some EAs (39%). These data suggest EA providers may wish to address relapse risks conferred by SNS participation, while these platforms might also be leveraged strategically to enhance recovery. **Brandon G. Bergman PhD, Edward James Sylvia MA MHC, John F. Kelly PhD**
- 12. Facial Affect Recognition Accuracy During Early Alcohol Abstinence: Possible Sex Differences.** Facial affect recognition impairment has been observed in individuals with alcohol use disorder. However, few studies report on the types of errors made by alcohol users on these tasks. Error types may have implications for treatment, as interpersonal problems accompanying affect recognition deficits are associated with treatment dropout. Moreover, sex differences based on error types have not been adequately explored in this population. The present study measured facial affect recognition performance in 30 subjects (10 women, 20 men) during early alcohol abstinence. We completed an item-level analysis in order to determine the percentage and types of errors made by subjects. Sex and overall affect recognition performance were used as predictors of errors for each type of affect (i.e., happy, sad, angry, afraid, surprised, disgusted, neutral). Those with affect recognition deficits made more errors when asked to identify happy and most negative (angry, disgusted, sad) facial expressions. Women with deficits were significantly more likely than men with deficits to inaccurately perceive happy faces. Findings suggest that some individuals during early alcohol abstinence have difficulty with accurate perception of facial affect, with some sex differences. Limitations of the study as well as implications for future studies will be discussed. **Darrin M. Aase PhD, Cheryl Mejta PhD**

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- 13. Substance Use and Sexual Risk Behavior in a Residential Treatment Population.** Individuals with substance use disorders (SUDs) may be especially vulnerable to sexual transmission of HIV; however, few studies have examined the sexual risk behaviors of individuals in SUD treatment. A sample of 93 residential SUD treatment patients with moderate to severe levels of prescription opioid misuse reported sexual behaviors and alcohol/drug use over the three month period prior to entering a controlled environment through self-report and Timeline Follow Back interviews. Overall, 81% (n=75) of participants reported sexual activity in the past three months (92%; n=69 vaginal and 35%; n=26 anal). Sex without a condom was reported by 93% (n=64) of those who engaged in vaginal sex and 65% (n=17) of those who participated in anal sex. In addition, 95% of those who endorsed vaginal condomless sex also reported use of alcohol/drugs within three hours of sexual behavior. Nearly 71% of the patients who reported anal sex without a condom also reported alcohol/drug use within three hours of sex. The present findings, combined with comparisons of sexual behavior and drug use with age and gender, highlight the importance of addressing sexual risk behavior during SUD treatment to decrease susceptibility to HIV transmission. **Emily Yeagley MA MPH, Laura C. Thomas MPH LMSW, Erin Bonar PhD, Mary Jannausch MPH, Amy Bohnert PhD, Mark Ilgen PhD**
- 14. Missing Data in Alcohol Clinical Trials with Binary Outcomes.** Missing data are common in alcohol clinical trials, many of which use binary measures as primary end-points (e.g., FDA, 2015). We re-analyzed data from participants in the COMBINE Study (Anton et al., 2006) with complete drinking data throughout the 16-week treatment period (N=1146) and simulated missing data due to participant dropout under different scenarios, sample sizes, and missingness rates. Logistic regression tested the effect of receiving naltrexone on binary drinking outcomes using different approaches to handling missing data, including complete-case analysis (CCA), last observation carried forward (LOCF), the worst-case scenario of missing equals heavy drinking (WCS), and multiple imputation (MI). WCS produced substantial bias in most scenarios, while CCA produced the greatest bias when missingness was associated with the outcome (i.e., data missing not at random). LOCF often produced biased effect estimates, but performed relatively well in several scenarios. Multiple imputation typically provided the most unbiased treatment effect estimates. Regardless of the method used, missing data can introduce considerable bias in treatment effect estimates. Researchers analyzing binary outcomes data from alcohol clinical trials are encouraged to utilize modern methods for handling missing data, particularly multiple imputation. **Kevin A. Hallgren PhD, Katie Witkiewitz PhD, Henry R. Kranzler MD, Daniel E. Falk PhD, Raye Z. Litten PhD, Stephanie S. O'Malley PhD, Raymond F. Anton MD.**
- 15. Cannabis Use during Treatment for Alcohol Use Disorders is Associated with More Frequent Alcohol Consumption.** Cannabis is one of the most commonly used drugs among individuals with alcohol use disorders (AUD). The aim of this study was to examine how cannabis use during AUD treatment relates to post-treatment alcohol outcomes via secondary analyses of the COMBINE Study, a large (N=1,383) multi-site randomized control trial of treatments for AUD. Statistical analyses included Tobit and Poisson regressions of cannabis use during the 16-week treatment on post-treatment percent days abstinent (PDA) and drinks per drinking day (DPDD). Results showed that compared to no cannabis use, any cannabis use during treatment was associated with a 7.81 percentage point decrease in PDA at 16 weeks ( $P<0.006$ ), but not associated with DPDD. On the other hand, the percentage of days using cannabis during treatment was not related to PDA, but was significantly related to DPDD, both in the sample overall ( $B=0.0039$ ,  $P<0.0001$ ) and among cannabis users only ( $B=0.0040$ ,  $P<0.001$ ). Thus, cannabis use during treatment for AUD may worsen alcohol-use outcomes post-treatment. Contrary to some studies indicating cannabis may help reduce alcohol use, these findings indicate AUD treatment providers should continue to advise patients not to use cannabis during treatment if the ultimate goal is alcohol abstinence. **Meenakshi Sabina Subbaraman PhD, Deidre Patterson MPH, Jane Metrik PhD, Robert Swift MD**
- 16. Acute Inhibitory Control Training in Cocaine Users.** This ongoing pilot study is assessing the effects of acute inhibitory control training to cocaine-related images in cocaine users. We hypothesized that acute inhibitory control training to cocaine-related images would improve response inhibition and decrease attentional bias to cocaine images. Participants are current cocaine users. Target enrollment is 40 participants; 16 have completed. Participants undergo five blocks of inhibitory control training to cocaine or neutral images (n=8/group) on one day. Response inhibition and attentional bias are assessed at two time-points (before and after inhibitory control training) using the Stop-Signal Task (SST) and Visual-Probe Task (VPT), respectively. Response inhibition performance decreased as a function of stop-signal delay on the SST. Attentional bias to cocaine-images was observed on the VPT. Groups did not differ in inhibitory control training performance, nor were there significant effects of group or time-point on response inhibition or attentional bias. These initial results suggest that acute inhibitory control training to cocaine-images does not alter response inhibition performance or attentional bias to cocaine-images in cocaine users. However, the current sample size might be insufficient to detect training effects. Future studies should investigate long-term implementation of inhibitory control training, possibly in conjunction with other treatments. **Craig R. Rush PhD, Joseph L. Alcorn III PhD, Erika Pike MS, Joshua A. Lile PhD, William W. Stoops PhD**
- 17. Behavioral Economic Predictors of Moderation Outcomes During Natural Recovery from Alcohol Problems.** Individual differences in sensitivity to delayed outcomes predict addictive behavior status and outcomes. Although substance misusers generally show greater sensitivity to shorter term contingencies, problem drinkers with relatively greater self-control appear more likely to achieve stable moderation. However, unique contributions of multiple behavioral economic measures to predict moderation versus abstinence or relapse are seldom investigated together. The present study enrolled community-dwelling problem drinkers, recently resolved without treatment, and followed them prospectively for up to a year (N=175 [75.4% male], M age=50.65 years). They completed baseline assessments of pre-resolution drinking practices and problems; hypothetical choice tasks (Delay Discounting, Melioration-Maximization, Alcohol Purchase Tasks); and pre-resolution expenditures on alcohol compared to savings (Alcohol-Savings Discretionary Expenditure [ASDE] index). Multinomial logistic regression models showed that only the ASDE index predicted moderation versus abstinence one year post-resolution. As hypothesized, moderation was associated with more balanced pre-resolution allocations to drinking and savings ( $OR=15.93$ , 95%  $CI=1.28\sim199.08$ ,  $p<.05$ ), suggesting it is associated with longer term behavior regulation processes than abstinence. Stable moderation, but not abstinence, requires such daily regulatory processes. **Jalie Tucker PhD MPH, Susan Chandler MPH MA, JeeWon Cheong PhD, Brice Lambert MSPH, Brittney Pietrzak MPH, Heather Kwok MS, Susan Davies PhD**
- 18. Alcohol Craving and Demand as Mediators between Depression and Anxiety Symptoms and Alcohol Problems.** Depression and anxiety are highly comorbid with alcohol use severity and often predict this severity above and beyond drinking level. Relatively little is known about the specific mechanisms that account for this association. Individuals with psychiatric symptoms may experience elevated alcohol craving and alcohol reward value (demand), which may in turn lead to more compulsive patterns of use and an inability to regulate drinking in order to avoid negative consequences. The current study tested this hypothesis in a sample of college students (n=303) who reported recent heavy episodic drinking. Depression, Anxiety, and Stress Scale (DASS) scores were significantly correlated with alcohol craving,  $r=.281$ ,  $p<.01$ , and alcohol-related consequences,  $r=.433$ ,  $p<.01$ . Alcohol-related consequences was correlated with craving,  $r=.444$ ,  $p<.01$ , and alcohol demand,  $r=.322$ ,  $p<.01$ , but craving was the only significant mediator between DASS scores and alcohol-related consequences ( $B=.0192$ ,  $SE=.0081$ , 95%  $CI [.0071, .0387]$ ). The results of this study are consistent with previous research that craving is a unique risk factor for alcohol-related consequences. Screening for risky drinking and craving, particularly in heavy drinking, highly depressed and/or anxious college students, is strongly suggested. **Kathryn Soltis BS, Brian Borsari PhD, Ashley Dennhardt PhD, Matthew Martens PhD, Jenni Teeters MS, James Murphy PhD**

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- 19. Measuring Incentive Salience to Alcohol: Self-Report, Implicit, and Behavioral Economic Approaches.** Previous research on alcohol use disorders emphasize craving as an important predictor of alcohol-related outcomes; however, craving only moderately predicts alcohol-related problems. The purpose of the present study is to examine various ways to measure incentive salience, or the reward value given to alcohol by college student drinkers. College students (current  $n=107$ ) completed multiple measures to assess reward value placed on alcohol: self-reported craving (Obsessive Compulsive Drinking Scale), implicit cognitive measures (alcohol dot probe for attentional bias, implicit association test for evaluative associations), and reinforcing efficacy from a behavioral economic measure (Alcohol Purchase Task). Although we found limited associations amongst these distinct measures of incentive salience, each class of measures demonstrated unique validity in the prediction of alcohol-related outcomes, accounting for between 12.8% and 19.6% of the variance in alcohol use and up to 44.8% of the variance in alcohol-related problems. Though self-reported craving was the strongest predictor of alcohol outcomes, implicit evaluative associations as well as specific behavioral economic measures (e.g., Omax, breakpoint) were also found to predict alcohol outcomes. We discuss our findings as they inform theory and intervention development. **Peter Minge, Alyssa R. Allen BS, Kevin S. Montes PhD, Matthew R. Pearson PhD**
- 20. The Substitutability of Cigarettes and Food: A Behavioral Economic Approach.** Obesity and cigarette smoking contribute to a multitude of preventable deaths in the US and eating and smoking behavior may influence each other. Behavioral economics categorizes commodities as substitutable when the consumption of one increases as a function of a price increase in the other. The current study evaluated the effects of rising food and cigarette prices on consumption to investigate their substitutability and their relationship to BMI and associated variables. Smokers ( $N=86$ ) completed a two-part hypothetical task in which money was allocated to purchase cigarettes and fast food-style reinforcers (e.g., burgers, ice cream) at various prices. Cross-price elasticity coefficients indicated that neither food nor cigarettes were substitutes for one another. Food purchases were independent of cigarette price, whereas cigarette purchases decreased as food price rose. Confidence in ability to control weight without smoking was significantly associated with cross-price elasticities, but BMI and other facets of eating and smoking behavior were not. Greater taxation of fast food could potentially reduce consumption of these foods and cigarettes given observed decreases in purchases of both as a function of food price. Perceived ability to manage weight without cigarettes may influence who substitutes food for cigarettes when quitting. **Cara Murphy PhD, James MacKillop PhD, Lawrence Sweet PhD, Max Owens PhD**
- 21. A Substance Free Activities Session Combined with a Brief Motivation Intervention Reduces Driving after Marijuana Use among College Marijuana Users.** Marijuana is the most prevalent illicit drug detected among drug-impaired drivers and the most frequently used illicit drug on college campuses. Behavioral economic theory suggests that a reduction in substance use and problems is most likely when there is an increase in rewarding substance-free activities. The present study investigated whether or not a Brief Motivational Intervention (BMI) enhanced by the Substance Free Activities Session (SFAS) was associated with significantly greater decreases in marijuana-impaired driving at 1-month-follow-up than an active control group (BMI+ Relaxation Training) and an assessment-only control group. Participants were 54 first and second-year college students who reported smoking marijuana on 5 or more days in the past month. After completing a baseline assessment, participants were randomized to either a) Assessment only, b) BMI + Relaxation Training (RT), or c) BMI + SFAS. Binary logistic regression analyses revealed that a BMI+SFAS was significantly associated with reductions in marijuana-impaired driving at 1-month follow-up compared to the assessment-only control condition (odds ratio [OR]=1.09, 95% CI [1.01, 1.73]). Consistent with behavioral economic theory, these results suggest a single session focused on increasing engagement in alternatives to marijuana-use can enhance the effects of brief interventions. **Jenni Teeters MS, Bettina Utzelmann, Alison Pickover MS, Lidia Meshesha MS, James Murphy PhD**
- 22. Latent Profile Analysis of Alcohol Approach and Avoidance Inclinations in Social, Problematic, and Formerly Problematic Drinkers.** The Ambivalence Model of Craving (AMC) conceptualizes craving as both the desire to use (approach) and the desire not to use (avoid) alcohol. Measuring "craving" exclusively in terms of approach without considering avoidance may misrepresent motivational dispositions that are a combination of both, thereby significantly diminishing the utility of the information obtained. The primary aim of the current study was to extend support for the AMC in a sample with a range of drinking behaviors, including social ( $N=24$ ), problematic ( $N=27$ ), and abstinent former problematic drinkers ( $N=20$ ). Craving was evaluated by having participants view alcohol cue images and separately rate their desire to consume and not consume the substance. We predicted a 3 class solution (approach, ambivalence, and avoidance) that would differ based on current drinking status. Results from the latent profile analysis supported a three class solution consistent with the AMC: approach ( $N=19$ ), avoidance ( $N=25$ ), and ambivalence ( $N=27$ ) toward alcohol. Furthermore, individuals within these classes were differentiated by current drinking status, AUDIT and SMAST scores, alcohol consumption, self-efficacy, problem recognition, and stages of change and treatment readiness. **Jacob A. Levine BA, Emily T. Noyes BS, Rita L. Christensen PhD, Robert C. Schlauch PhD**
- 23. Change in Youths' Alcohol-Related Cognitions after Participation in a School-Based Behavioral Intervention.** The current study examines whether alcohol-related cognitions influence youths' motivation to sustain or change hazardous drinking behavior. Project Options is a multi-site brief intervention (BI) offered to high school students ( $N=541$ ) with diverse levels of alcohol experience. Sessions targeted youths' perceptions of peer drinking, alcohol use and non-use expectancies, and self-efficacy to enact behavior change. The standard BI incorporating motivational enhancement (ME) was compared to an education-only (ED) format. The current study used a multi-level mixed-effects model to evaluate whether changes in youths' motivation to cut down/quit drinking measured at 4 and 12 weeks post-intervention were predicted by BI format (ME vs. ED), drinking level (light, moderate, or heavy), and changes in alcohol-related cognitions. The overall model predicting change in youths' level of motivation to quit/cut down was significant (Wald  $\chi^2(23)=288.16$ ,  $p<.0001$ ). The ME condition predicted greater increases in motivation compared to the ED condition at the 4 week follow-up ( $z=2.97$ ,  $p=.003$ ), and the interaction between drinking level and alcohol cessation expectancies indicated that increased cessation expectancies predicted increased motivation in heavy drinkers compared to light ( $z=-2.12$ ,  $p=.03$ ) and moderate ( $z=-1.94$ ,  $p=.05$ ) drinkers. **Kristin Tomlinson PhD, Mark G. Myers PhD, Sandra A. Brown PhD, Guadalupe Bacio PhD**
- 24. Relationships between Alcohol Use, Depression, and Neurocardiac Functioning.** This study sought to compare the impact of drinking and depression on neurocardiac functioning in 108 physically healthy college students. Participants were categorized based on the presence ( $n=43$ ) or absence ( $n=65$ ) of major depression and consumption of a minimal ( $<2$ ,  $n=50$ ) or a moderate/high ( $\geq 2$ ,  $n=58$ ) number of standard alcoholic drinks per typical drinking occasion. There was a main effect of drinking group on mean heart rate and low-frequency HRV and a main effect of depression group on mean heart rate, RMSSD, and high-frequency heart rate variability (HRV). The moderate/high-drinking group had lower heart rate and lower low-frequency HRV compared to the minimal drinking group, the latter of which may suggest impaired baroreflex functioning. The depressed group had higher heart rate and lower RMSSD and high-frequency HRV, two indices of vagal control of heart rate, compared to the non-depressed group. High-frequency HRV appeared to be lower only in the depression/minimal-drinking sub-group. These findings suggest depression and alcohol use have distinct relationships to neurocardiac functioning, and that alcohol use may buffer the physiological effects of depression in college students, perhaps due to contextual drinking factors in this age group. **Laura M. Banu BA, Jennifer F. Buckman PhD, Ryan L. Olson MA, Christopher J. Brush BS, David Eddie MS, Deena Peyser MS, Marsha E. Bates PhD, Tracey Shors PhD, Brandon L. Alderman PhD**

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**25. Role of Resting State Functional Connectivity and Temperament in Rhesus Macaque Ethanol Self-Administration.** Aggression is associated with heavy drinking in humans, but it is unclear if it is pre-existing or consequential of ethanol use. Specific alterations in functional connectivity may be associated with aggression and lead to ethanol dependence. Subjects included 12 rhesus macaques. Temperament was measured with the human intruder test. Seed-based resting-state functional connectivity (rsFC) from the central amygdalar nucleus (CeA) to dorsolateral prefrontal cortex (dlPFC), medial prefrontal cortex (mPFC), and orbitofrontal cortex (OFC) were calculated from MRI scans at baseline and after 17 months of daily ethanol access. Ethanol self-administration was induced via a schedule induced polydipsia procedure, and ethanol (4% wv) and water were subsequently available concurrently 22 hours/day. Blood ethanol concentrations (BEC) were determined 7 hours after session start. Aggressive monkeys self-administered more ethanol and achieved higher BEC. Baseline CeA-OFC connectivity was more anticorrelated in aggressive monkeys and future heavy drinkers, and heavy drinking strengthened CeA-OFC anticorrelations. Baseline CeA-dlPFCm/PFC rsFC was more anticorrelated in aggressive monkeys, but higher positive connectivity was associated with future heavy drinking and was strengthened after heavy drinking. Aggressive temperament may predict future heavy ethanol self-administration, and both may be mediated by connectivity between the CeA and PFC. **Megan McClintick BS, Julian "Bene" Ramirez BA, Damien Fair PA-C PhD, Kathy Grant PhD**

**26. Sober Resting Heart Rate as a Risk Factor for Alcohol Induced Heart Rate Increases and Stimulation.** Previous literature has found that acute alcohol-related heart rate (HR) increases are associated with heightened sensitivity to alcohol's stimulant effects (Conrod et al., 2001). There is also evidence that a higher sober resting HR is related to heavier drinking (Chiax et al., 2011). To our knowledge, no prior studies have examined effects of sober resting HR on HR change or stimulation following alcohol consumption. The current study examined this question in a sample of 153 moderate to heavy drinking young adults (21-25; 70.7% male; average weekly drinks=8.06; SD=7.68) who participated in a placebo controlled alcohol administration study (target BAC of .08 g%). As anticipated, alcohol (relative to placebo) was associated with increased HR ( $b=2.68$ ,  $SE=1.15$ ,  $p=.02$ ) and stimulation ( $b=1.79$ ,  $SE=.35$ ,  $p<.001$ ), as BACs were rising. Although sober resting HR did not moderate beverage effects on ascending HR ( $b=-.12$ ,  $SE=.12$ ,  $p=.32$ ), there was a trend toward greater alcohol induced stimulation (relative to placebo) among those with higher sober resting HR ( $b=.06$ ,  $SE=.04$ ,  $p=.08$ ). Thus, although high sober resting HR is not related to greater HR increase after alcohol consumption, it is related to greater stimulation, suggesting a potential mechanism through which high resting HR may contribute to heavier drinking. **Angela Harrid, William R. Corbin PhD, Caitlin Scott MA, Jessica Hartman BS**

## Saturday March 19 1:30 PM – 2:30 PM

**1. Exposure to Stress and E-Cigarette Use: Examining the Moderating Effects of Race and Gender.** Exposure to stress is a risk factor for tobacco use, but little research has examined the effect of stress on e-cigarette use. The purpose of this study was to test the hypothesis that stress exposure would be associated with e-cigarette use and to examine the impact of sex and race. Participants (aged 18-24;  $n=282$ ; 57% male) had smoked  $\geq$  monthly for  $\geq 6$  months and had never been daily smokers. Participants completed measures of e-cigarette use and life stress as part of a larger longitudinal study of tobacco use. Nearly one-third of participants reported past 14 day e-cigarettes use. Analyses yielded a three-way stress X sex X race interaction ( $p=.017$ ). Simple effects indicated that stress was associated with greater e-cigarette use for women and non-Caucasians; for Caucasian males, the association was reversed ( $p<.05$ ). We found a high prevalence of e-cigarette use among young adults who smoke traditional cigarettes at least monthly. Findings suggest that young women and those who identify with minority groups may be more likely to use e-cigarettes in the context of life stress. Teaching alternative coping strategies may help to reduce e-cigarette use. **Kristin Brikmanis BA, Neal Doran PhD**

**2. Conduct Disorder and Substance Use Disorder Comorbidity in a Longitudinal Sample of Indigenous Adolescents.** American Indian and First Nations (hereafter Indigenous) communities experience significant mental health and substance use disparities and associated public health consequences. And yet, few studies provide empirical reports of Indigenous substance use and their co-occurrence with other psychiatric disorders, particularly over time. In this study, we examine the emergence of dual diagnosis of substance use and conduct disorder over the early life-course in a unique population sample of Indigenous youth spanning the ages of 10 – 20 years ( $N=619$ ). Psychiatric diagnoses were measured using the DISC-R administered at Wave 1 (mean age 11.3 years), Wave 4 (mean age 14.3 years), Wave 6 (mean age 16.2 years), and Wave 8 (mean age 18.3 years). Conduct disorder tended to precede substance use disorder in early adolescence, with comorbid diagnostic prevalence peaking at Wave 4. While males had higher rates of conduct disorder alone and with substance use disorder, females had higher rates of substance use disorder alone. Implications for the conceptualization, prevention, and treatment of adolescent externalizing disorders will be discussed. **Brenna Greenfield PhD, Kelley Sittner PhD, Melissa Walls PhD**

**3. Counselor Communication Patterns Vary by Youth Ethnicity: Preliminary Results from Motivational Interviewing.** In the United States, Hispanic ethnicity is associated with unique risk factors for adolescent HIV risk. These disparities may be exacerbated by counselor effects in intervention sessions. To assess the influence of youth ethnicity on counselor communication patterns, we evaluated 60 audio-recorded psychotherapy sessions from a large study with justice-involved youth. We used sequential coding with the MISC 2.5 rating system and CACTI coding application. After coding, log-normalized odds ratios were extracted in GSEQ and effect sizes comparing Hispanic and non-Hispanic youth computed for transitions involving utterances about behavior change (i.e., change talk). Youth ethnicity influenced the pattern of counselor responses: when Hispanic clients emitted change talk, counselors were less likely to follow up with an open question ( $d=-0.54$ ); instead, they were more likely respond to change talk from Hispanic clients with closed questions ( $d=1.10$ ), information ( $d=0.18$ ), and generic MI-consistent behaviors such as affirmations and expressions of support ( $d=0.51$ ). Hispanic clients were also less likely to emit consecutive change talk utterances ( $d=-0.23$ ), a communication pattern linked to treatment outcomes in adult samples (Houck & Moyers, in press; Moyers et al., 2009). These preliminary results suggest that despite the intentions of counselors, Hispanic youth may experience intervention sessions of poorer quality. **Jon M. Houck PhD, Jennifer G. Benson MS, L. Nikki Rowell MS, Sarah W. Feldstein Ewing PhD, Angela D. Bryan PhD**

**4. Treatment Fidelity of Motivational Interviewing when Delivered in Spanish and English to Hispanic Heavy Drinkers.** Delivering multi-lingual treatment can pose challenges in assuring fidelity. We evaluated the treatment fidelity of motivational interviewing (MI) delivered in Spanish and English to Hispanics enrolled in an ongoing clinical trial to reduce heavy drinking, using the Motivational Interviewing Treatment Integrity coding system (MITI) 3.1.1. A MITI coding lab was established where bilingual ( $n=3$ ) and monolingual ( $n=3$ ) coders were trained to reliably code Spanish and English MI audiotapes. Codes for MI Spirit and Behavior counts were similar across languages. Across all English-language tapes ( $n=39$ ), average Spirit, range 1-5, (SD) was 4.24 (0.43) compared to Spanish-language tapes ( $n=21$ ), 3.90 (0.41); Behavior counts were similar. Across all coders, Spirit ranged from 3.95–4.23 ( $M=4.22$ ); again, Behavior counts were similar. Across bilingual coders ( $n=3$ ) and across language, Spirit was similar ( $M=4.31$ ), as were Behavior counts; however, '% Open Questions' were higher for English tapes ( $M=66.6$ ) than Spanish tapes ( $M=55.4$ ). Findings replicate the reliability of the MITI for use in other languages, as well as among Hispanic heavy drinkers in the U.S. Varying level of Spanish-speaking fluency, coupled with participants' vernacular idiosyncrasies and regionalisms, challenged coding reliability. Resources are needed to monitor high quality treatment fidelity, particularly in multi-language interventions. **Tonya Tavares MS, Christina S. Lee PhD, Julissa Ayala BA, Joanna Almeida ScD MSW MPH, Dharma E. Cortes PhD, Damaris J. Rohsenow PhD, Suzanne M. Colby PhD**



**Saturday March 19 1:30 PM – 2:30 PM**

- 5. Cannabis Use, PTSD Symptoms and Outcome Expectancies: A Moderated-Mediation Model.** Over two-thirds of people seeking treatment for SUD report one or more traumatic life events, and among individuals with PTSD nearly half also met criteria for SUD. Aligned by Khantzian's self-medication model (1977; 1985), research on co-occurring PTSD symptoms and substance use shows significant relationships between alcohol, cannabis, anxiolytic, and opioid use and symptomology. Research on cannabis use and PTSD is limited, however, with even fewer studies on mediators and moderators in this relationship. Bonn-Miller et al. (2007) found PTSD symptom severity was significantly related to increased coping-oriented marijuana use motives, and this relationship was mediated by distress tolerance (2011). The aim of the current study was to explore the relationship between cannabis use, PTSD symptoms, and PTSD symptom specific expectancies in a sample of undergraduate students (N=500). Analyses assess symptom severity and frequency of cannabis use, and mediating effects of expectancies. Additionally, moderation effects of gender on this mediated relationship will be tested. Results are relevant to the recent legalization of cannabis in many states. Mediating and moderating factors in the PTSD-cannabis use relationship are important for understanding and predicting cannabis use following exposure to trauma. **Kristoffer Rehder MS, Danielle Sitzman PhD, Kayleen Islam-Zwart PhD, Sarah Bowen PhD**
- 6. Anxiety Sensitivity and Subjective Effects of Alcohol, Cigarettes, and Cannabis in Adolescents.** Anxiety sensitivity (AS, i.e., the fear of anxiety and physical sensations) may be related to substance use and dependence. Given that AS individuals may experience increased interoceptive awareness, they may be hypersensitive to the physiological reactions of substance use. This study investigated associations between AS and positive and negative subjective response to alcohol, cigarettes, and cannabis. In this cross sectional study, adolescents completed surveys on substance use and the children's anxiety sensitivity index (CASI). Adolescents reporting past six-month use of alcohol (n=462), cigarettes (n=73), and cannabis (n=274) were included in individual regression models of AS factors predicting positive and negative subjective effects after controlling for demographics, mood, and substance use history. CASI total, CASI physical concerns (PC), and CASI mental concerns significantly predicted negative effects of alcohol (betas=.11-.12,  $p<.05$ ). CASI PC significantly predicted negative effects of cigarettes (beta=.33,  $p<.03$ ). CASI total and CASI PC significantly predicted negative effects of cannabis (betas=.20-.22,  $p<.02$ ). CASI social concerns predicted positive effects of cannabis (beta=.14,  $p<.04$ ). These results suggest that different factors of AS may differentially associate with positive and negative subjective effects of alcohol, cigarettes, and cannabis during early use and experimentation. **Raina D. Pang PhD, Casey R. Guillot PhD, Michael J. Zvolensky PhD, Adam M. Leventhal PhD**
- 7. Longitudinal Examination of the Association between Internalizing Symptomatology and Delinquent Behaviors in Adolescent Tobacco Use.** The present study tested whether the relationship between delinquent behaviors and multiple internalizing disorders to adolescent tobacco use is redundant, additive, or synergistic. The study utilized two waves of data from 3,383 adolescents in the Los Angeles Area who were beginning high school at the time of study entry. This study examined the likelihood of reporting past six-month tobacco use at follow-up based on the number of delinquent behaviors and internalizing symptoms endorsed at baseline. Results indicated that the relationships between delinquent behaviors and both Generalized Anxiety Disorder and Social Phobia were redundant. The relationship between delinquent behaviors and Major Depressive Disorder was additive, such that, the odds ratio of reporting past six-month tobacco use was 1.74 ( $p<.0001$ ) and 1.13 ( $p<.05$ ), respectively. Lastly, the relationship between delinquent behaviors and Panic Disorder was synergistic. Adolescents low in delinquent behaviors were at greater risk for reporting tobacco use as the number of Panic Disorder symptoms endorsed increased; however, the risk carried by panic was diminished among teens with high delinquent behaviors. These results point to the clinical importance of assessing internalizing disorders that may be differentially related to substance use when comorbid with delinquent behaviors. **Rubin Khoddam MA, Nicholas Jackson MPH MA, Adam Leventhal PhD**
- 8. Importance of Tobacco Use Assessment within Adolescent Substance Abuse Treatment.** Substance users are more likely to use tobacco, but little is known about how tobacco use may influence substance use treatment engagement. The current study examines rates and predictors of tobacco use among adolescents in outpatient substance use treatment, and the relationship between tobacco use and motivation to change other substance use. Patients (N=175; 69% male; M age=16) completed baseline questionnaires upon treatment enrollment. Prevalence of current tobacco use was 54%, with higher rates found only for marijuana (77%) and alcohol (56%). However, tobacco was the drug most commonly used daily (23%). Caucasian patients were more likely to report tobacco use (62%), relative to non-Caucasians (35%;  $p=.002$ ). Elevated tobacco use was also observed for those with legal problems (64%) vs. those without (46%;  $p=.04$ ). Tobacco users were less motivated to change other substance use behaviors ( $p=.01$ ). Tobacco use is critical to address among substance users, as tobacco use was approximately eight times higher than national estimates for U.S. adolescents of comparable age. Tobacco use may impede substance use treatment engagement, but causation cannot be determined from this cross-sectional study. In summary, suggest substance use treatment programs represent a window of opportunity to assess and treat tobacco use. **Sandhya Kutty Falls BS, Bryan W. Heckman PhD, Joshua P. Smith PhD, Viktoriya Magid PhD**
- 9. 21<sup>st</sup> Century Recovery Management: Characterizing Members of a Recovery-Specific Social Network Site.** Recovery-specific social network sites (SNSs) are digital communities that resemble popular sites like Facebook, but cater to individuals in, or seeking, recovery from substance use disorder (SUD). These contemporary resources might help individuals initiate and/or sustain abstinence, similar to face-to-face recovery support services but with even greater accessibility. However, very little is known naturalistically about how individuals engage with these sites, and whether participation confers recovery benefit. As an initial step, we surveyed members of the largest known recovery SNS, InTheRooms.com (ITR). About half of the sample (N = 123; 57% female; Age = 23-78 yrs; 94% White; M = 7 years in recovery) logged on at least several times each week and at least 30 minutes each time. In the past 90 days, 42% participated in a live online video meeting, 27% messaged with another member, and 41% read/posted on a discussion board. More than two-thirds agreed that ITR participation helped decrease cravings and three-fourths that it increased their motivation for recovery. Three regression models controlling for demographics, time in recovery, and mutual-help meeting attendance showed that emotional connection to ITR was significantly associated with recovery social support, recovery identity, and recovery capital ( $r_s^2 = .03 - .07$ ). **Brandon Bergman, PhD, Nathaniel W. Kelly, Corrie L. Vilsaint PhD, Bettina B. Hoepfner PhD, John F. Kelly PhD**
- 10. Development and Validation of a 10 – Item Short Form for the Assessment of Recovery Capital using Item Response Theory.** Recovery capital is the breadth and depth of internal and external resources that can be drawn upon to initiate and sustain recovery from alcohol and other drugs (Cloud & Granfield, 2008). Item response theory (IRT) methods were used to shorten a 50-item measure of recovery capital (Groshkova, Best, & White, 2013) down to a validated 10-item measure. The Assessment of Recovery Capital (ARC) taps 10 domains of recovery using a self-report measure with a dichotomous (yes/no) response scale. The sample consisted of 200 reports of recovery capital provided by participants at community rehabs and recovery groups across Scotland and England in 2010. A test of differential item functioning showed the final items are invariant across ethnic groups of White British (n=132) and minority backgrounds (n=68) as well as participants in early (n=98) versus stable recovery (n=82). Internal consistency of the 10-item ARC was  $\alpha=.95$ . Concurrent validity was established by correlating scores from the 50-item ARC with scores from the 10-item ARC,  $r=.92$ . Comparison of mean IRT scores showed that minority participants reported significantly more recovery capital than White British participants, despite having shorter recovery times. Previously found mean level differences between ethnic groups may not be due simply to item bias. **Corrie L. Vilsaint PhD, John F. Kelly PhD, Teodora Groshkova PhD, David Best PhD, William White PhD**

# Meeting Abstracts: Posters

**Saturday March 19 1:30 PM – 2:30 PM**

- 11. Case Management with Prenatal Substance Users to Improve Parenting Attitudes.** Pregnant substance users (PSU) are at elevated risk of CPS involvement, of having children with poor regulatory abilities, and of engaging in ineffective parenting behaviors. Additionally, PSU are more likely to have limited economic and social resources, more mental health problems, and a history of abuse or other trauma. Case management (CM), a model of care involving coordinated treatment planning and connection with needed services, has been shown to increase prenatal care visits, decrease substance use, and improve birth outcomes for PSU. This study provided intensive home-based case management to ethnically diverse, primarily low-income PSU, as part of a continuum of other services including medication-assisted treatment and substance use counseling, and assessed changes in parenting attitudes from pre to post pregnancy 1-3 months later. Mothers improved significantly in developmentally appropriate expectations ( $F(1, 32)=4.961, p<.05$ ) and empathy ( $F(1, 32)=16.312, p<.001$ ) towards their children on the Adult Adolescent Parenting Inventory (AAPI-2). Maternal age accounted for a significant amount of variance in parental expectations of child Time 2 scores after accounting for Time 1 scores ( $F(1, 32)=5.784, p<.05$ ). Implications for timing of CM for PSU and potential moderators of CM effectiveness are discussed. **Jennifer Benson MS, Peggy MacLean PhD, Andrew C. Hsi MD**
- 12. Non-Abstinence AUD Treatment: A Clinical Review of Successful Alcohol Moderation.** Alcohol abuse treatment programs historically categorize individuals into two groups, Alcohol dependent Vs. Non-dependent. Assigning abstinence treatment goals for all entering patients who meet diagnostic criteria. The current trend towards the individualization of mental and physical health conditions affords clinicians the ability to identify multiple factors and characteristics (e.g., genetic markers, personality traits) that may contribute to a patient's condition. This approach, when extended to alcohol use, suggests multiple levels of severity, a view supported by the recent release of the DSM-5 and its Alcohol Use Disorder (AUD) diagnosis. When considered through a continuum lens the appropriateness of moderation, or reduced drinking, goals for AUD is increased. The presented clinical case study summarizes treatment progress of an AUD patient seeking moderate treatment goals in an outpatient setting. **Adi Jaffe PhD, Seal Molnar, Therese Todd**
- 13. Substance Use Diagnosis, Alcohol Use, and Symptom Severity in Psychiatric Inpatients.** According to researchers (Meade, et al. 2008) the co-occurrence of serious mental illness and substance use disorders is common. In the present study we examined the relationship between history of substance use diagnosis, alcohol use, and symptom severity in an inpatient psychiatric setting. 127 psychiatric inpatients were administered the Brief Psychiatric Rating Scale Expanded Version (BPRS-E) prior to discharge. The results identified elevations in a pattern of psychiatric symptoms for patients with a history of substance use diagnoses. Specifically, increased tension  $t(115)=-3.347, p=.001$ , motor hyperactivity  $t(100)=-2.504, p=.014$ , and excitement  $t(115)=-2.09, p=.039$  were linked with a history of substance use diagnosis; and increased elevated mood  $t(125)=-2.311, p=.022$ , disorientation  $t(125)=-2.648, p=.009$ , and bizarre behavior  $t(125)=-2.115, p=.036$  were linked with alcohol use. This raises questions about the relationships between arousal and substance use in inpatient care. These findings highlight the importance of assessment at discharge to better prepare patients for continued treatment following discharge. **Aquila Richardson MA, Avivah McDade MA, Sarah Schubmehl MA, Raquel Osorno MS, Gregory Katzen MS, Melissa O'Donnell MS, Jennifer Bielenberg MS, Samuel Barkin MA, David Sugarbaker MS, Doug Cort PhD**
- 14. Drinking Beyond Intended: A Model of Unplanned Drinking Behavior.** Over half a million injuries among the college student population occur due to alcohol consumption annually. The Model of Unplanned Drinking Behavior (MUDB) posits that unplanned drinking, or drinking beyond one's intentions, is likely to lead to negative consequences because minimizing these consequences requires planning and impulse control. Some support for the MUDB has been found using a self-reported measure of unplanned drinking (Pearson & Henson, 2013). In the present study, we collected 4 weeks of ecological momentary assessment (EMA) data among college students ( $n=124$ ), focusing on alcohol use, alcohol use intentions, and alcohol-related consequences. We used multilevel modeling to examine the unique predictive effects of drinking quantity (number of drinks), drinking intentions (anticipated number of drinks), and drinking more than intended (drinking quantity-drinking intentions difference score) on alcohol-related consequences. Consistent with the MUDB, we found that drinking more than intended predicted increased alcohol-related consequences ( $b=.174, p=.001$ ), even when controlling for alcohol use ( $b=.104, p=.022$ ) and alcohol use intentions ( $b=.054, p=.266$ ). These findings support the MUDB and suggest that having interventions that focus on unintended drinking behavior may be advantageous in reducing consequences. **Angelica B. Velazquez, Kevin S. Montes PhD, Adrian J. Bravo MS, Matthew R. Pearson PhD, James M. Henson PhD**
- 15. Creating Profiles of Alcohol Use and Aggressive Behavior in College Athletes.** This study examines alcohol use and aggressive behaviors among college athletes using a person-centered statistical approach to better understand how these factors come together within an individual to affect risk. Latent Profile Analysis (LPA) of 276 Division I athletes revealed six mutually exclusive profiles that ranged in behavioral severity from low aggressive/low drinkers (LL) to highly aggressive/high drinkers (HH). On average, the LL profile averaged drinking 1.1 days during the past 30 days. In contrast, the HH profile averaged 17 of 30 days drinking. The differences were significant ( $p<.001$ ). These findings have implications for designing tailored athlete-specific prevention and intervention strategies that consider aggressive behaviors and alcohol as two behavioral facets that can interact to dramatically affect risk for negative outcomes. Further, this research may contribute to efforts to reduce the disparity in the provision of behavioral health services to underserved racial populations as African-Americans are overrepresented in the two highest-profile, highest-revenue sports (football and basketball) and professional sports leagues recruit heavily at colleges and universities. As such, institutions of higher learning are uniquely positioned to implement alcohol use and aggression prevention and intervention initiatives that address problem behaviors before these athletes fully enter the national spotlight. **Fiona Conway PhD MSW, Robert Monaco MD MPH, Jason Womack MD, Jennifer Buckman PhD**
- 16. Differences among College Students of Varying Levels of Substance Use.** The goal of this study was to examine differences on risk factors between cigarette smoking college students at three incremental levels of substance use. We expect that use of multiple substances is associated with greater temperamental risks, more problem drinking and greater tobacco use. Participants were 218 college students enrolled in a longitudinal study of tobacco use (40% female; 37% Asian, 35% White, 8% Hispanic; M age=19.9 years) who reported at least one past month episode of a) heavy drinking (all groups), b) marijuana use (HD+MJ group) and c) and the prior plus non-marijuana drug use (polysubstance group). Groups were compared on impulsivity, negative affect, drinking behaviors, alcohol use problems, and tobacco use. Covarying for age, we found significant differences between groups on self-reported exposure to smoking, percentage of friends who smoke, drinking behaviors (number of drinking days, number of drinks consumed, heavy drinking episodes) in the past month, and impulsivity. College students in the polysubstance group reported drinking the highest number of days, consuming the most drinks, and having the most heavy drinking episodes in the past month of the three groups. Findings suggest polysubstance use is linked with temperament and environmental factors. **Inga Mileviciute MS, Mark Myers PhD**

**Saturday March 19 1:30 PM – 2:30 PM**

- 17. Associations between Motives for Marijuana Use and Reinforcing Efficacy in College Student Marijuana Users.** College student marijuana users endorse a number of motives for smoking, thus nuanced research is needed to better understand the relationship between motives and marijuana valuation in this group. From behavior economic theory, reinforcing efficacy (RE) represents a drug's behavior-strengthening properties, providing measurement of one's relative valuation for a drug. Here, we assessed the relationship between motives and demand curve indices of RE: intensity (consumption at \$.00); breakpoint (price suppressing consumption to zero); omax (maximum expenditure); pmax (price associated with maximum expenditure). Fifty-eight college students endorsing 5+ days of past-month marijuana reported on use, motives, and the marijuana purchase task, a self-report measure of hypothetical marijuana purchase yielding the aforementioned RE indices. Multiple regression analyses, in which motives were simultaneously entered as predictors of RE indices, indicated that students endorsing greater use for social anxiety relief smoked more when marijuana was free (greater intensity;  $p < .001$ ). Students indicating greater use because of availability had higher breakpoint and pmax values ( $p \leq .012$ ; Omax approached significance,  $p = .056$ ). Results did not differ when controlling for past-month use. **Alison M. Pickover MS, Samuel F. Acuff BS, James Murphy PhD**
- 18. A Time-varying Effect Model of the Dynamic Association between Alcohol Use and Consequences over the First Years of College.** Alcohol use explains only some variance in alcohol-related consequences among college students. This association may change across development, as students develop tolerance or learn to avoid negative effects of drinking. Time varying effect models (TVEM) allow statistical examination of the changing strength of association between variables as they unfold continuously across time. In this study, we hypothesized that the association between weekly quantity of alcohol use and the odds of an alcohol consequence that week would decrease in strength from the beginning of freshman year to the end of sophomore year, and examined gender differences in this association over time. Participants ( $N=812$ , 60% female) completed 36 bi-weekly assessments. TVEM models revealed that the proportion of those for whom alcohol use led to a consequence declined across time. Aside from the first few weeks of college, the association between alcohol use and odds of a consequence was consistently stronger for women than men. Among men, odds of a consequence declined steadily over time. Among women, the strength of this association was more dynamic. Future research that focuses on understanding factors that explain the decreasing association between use and consequences with time can contribute to college student alcohol education and interventions. **Jennifer Merrill PhD, Shannon Kenney PhD, Nancy Barnett PhD**
- 19. Depressive Symptoms and Coping Motives on Naturalistic Trends in Negative and Positive Alcohol Consequences.** Depressive symptoms and drinking to cope with negative affect increase the likelihood for drinking-related negative consequences among college students. However, less is known of their influence on the naturalistic trajectories of alcohol-related consequences. In the current study, we examined how positive and negative drinking-related consequences changed as a function of depressive symptoms and drinking motives (coping, conformity, social, enhancement). Participants ( $N=652$ ; 58% female) were college student drinkers assessed biweekly during the first two years of college. We used hierarchical linear modeling to examine means of and linear change in positive and negative consequences related to depression and motives, controlling for level of drinking. Consistent with hypotheses, negative and positive consequences decreased over the course of freshman and sophomore years. Further, higher levels of depression were associated with a faster decline in negative consequences during freshman year. Both depression and coping motives appear to influence average levels of negative and positive consequences, with the effects of coping motives on consequences most pronounced at low levels of depression. The current study provides strong longitudinal support that depressive symptoms and coping motives are important predictors of college students' natural experience of both negative and positive alcohol consequences. These findings enhance the understanding of how high-risk students experience alcohol-related risk and provide important implications for the development of targeted alcohol interventions. **Shannon Kenney PhD, Jennifer Merrill PhD, Nancy Barnett PhD**
- 20. Relationships among Impulsivity, Subjective Response and Alcohol Use in Past-Year Heavy Drinkers.** Impulsivity and subjective response are both strong predictors of alcohol use and alcohol-related problems, and both have been shown to be genetically linked to alcohol use disorders (AUDs). Those particularly at risk show higher levels of impulsivity, perceive higher levels of stimulating effects, and lower levels of sedating effects of alcohol. Previous research by Leeman et al., (2014) has shown that during alcohol administration, those with higher levels of impulsivity experienced higher levels of positive stimulating and lower levels of dampened, sedating effects of alcohol, particularly at higher doses. The current study attempted to replicate and extend these results using retrospective self-report data from a sample reporting past year heavy drinking ( $N=303$ ) and found that impulsivity statistically significantly predicted a low response to the sedative effects of alcohol, subjective response statistically significantly predicted past drinking frequency and quantity, and only impulsivity statistically significantly predicted past year problems. These findings supported our hypothesis that impulsivity and subjective response had unique relationships to drinking variables. This study has implications for future research by examining impulsivity and subjective response as potential risk factors for excessive drinking. **Benjamin Berey BA, Brian Pittman MS, Stephanie S. O'Malley PhD, Robert Leeman PhD**
- 21. Differential Prediction of Alcohol Problems using the UPPS-P Measure of Impulsivity.** Impulsivity is a broad personality trait frequently associated with involvement in risk-taking behaviors, particularly substance misuse. Models of impulsivity have disaggregated the trait into five distinct factors: positive urgency, negative urgency, lack of planning, lack of perseverance, and sensation seeking. Studies have found that the distinct dimensions of impulsivity have unique associations with different aspects of alcohol use, with urgency traits most associated with alcohol problems. However, differential associations of impulsivity traits with specific types of alcohol problems have not been studied. We tested the association of impulsivity traits with alcohol problems in two cross-sectional data sets (sample 1:  $n=347$ , mean age=18.8, 40% male; sample 2:  $n=470$ , mean age=18.6, 56% male). Impulsivity traits were measured with the UPPS-P, and alcohol problems were assessed with the Young Adult Alcohol Consequences Questionnaire. In both samples, structural equation modeling results indicated that negative urgency was associated with social/interpersonal, self-perception, and blackout drinking problems. Positive urgency was associated with self-care, academic/occupational, and physiological dependence problems. These results replicate findings that urgency is the impulsivity trait most associated with alcohol problems, and suggest that negative and positive urgency have differential associations with specific alcohol problems. **Kayleigh McCarty BS, David Morris MA, Laura Hatz BS, Denis McCarthy PhD**
- 22. Marijuana Demand and Problems as Predictors of Marijuana Change Efforts.** Behavioral economics can be used to assess demand (relative reinforcing value) for marijuana via use of a Marijuana Purchase Task. Marijuana demand has been previously associated with maladaptive marijuana use patterns but it is unknown whether demand predicts efforts to make changes in marijuana use. We hypothesized that marijuana demand and problems would predict marijuana change efforts in a sample of heavy users. To examine marijuana change efforts, demand and marijuana problems were assessed among 99 (37% female; mean age: 21; age range: 18-42) non-treatment seeking heavy marijuana users. Fifty-nine percent of the sample reported having previously attempted to quit or cut down on marijuana use. Logistic regression was used to examine whether demand indices (Omax and elasticity) and marijuana-related problems predicted marijuana change efforts (attempts to quit or cut down on marijuana use). Higher levels of elasticity (indicating decreased marijuana demand;  $p < 0.05$ ) and greater number of marijuana problems ( $p < 0.01$ ) were associated with increased likelihood of marijuana change efforts. However, Omax was not significantly associated with marijuana change efforts ( $p = 0.39$ ). Gender and income were not significantly associated with marijuana change efforts. These findings suggest that marijuana demand plays a unique role in change efforts independent of marijuana-related problems. **Elizabeth Aston PhD, Jane Metrik PhD**

## Saturday March 19 1:30 PM – 2:30 PM

- 23. Development and Validation of the Marijuana Injunctive Norms Scale.** The present study aimed to develop and validate the Marijuana Internalized Norm Scale (MINS), patterned off the College Life Alcohol Salience Scale (CLASS). Specifically, the MINS was designed to assess the degree to which individuals perceive marijuana use as part of the college experience. Using data collected from 10 college campuses, we split our total sample into a development and validation sample. Based on modification indices in the development sample, we iteratively made changes to the scale, which resulted in dropping 4 of the original 13 items of the MINS, and found excellent fit for simple, single-factor structure for the MINS. In the validation sample, we found that the 9-item MINS scale showed decent model fit for a single-factor model,  $\chi^2(27)=244.44$ ,  $p<.001$ , CFI=.937, TLI=.917, SRMR=.040, RMSEA=.101. We found convergent validity of the MINS scores with analyses at both the campus level as well as the individual level. For example, we found site differences in MINS scores such that campuses with higher rates of marijuana use demonstrated higher MINS scores. At the individual level, we found significant correlations between MINS scores and other marijuana perceptions variables (descriptive/injunctive norms). **Natalie W. Wendel, Alyssa R. Allen BS, Tatyana Kholodkov PhD, Adrian J. Bravo MS, Matthew R. Pearson PhD, Marijuana Outcomes Study Team**
- 24. A Latent Class Analysis of Marijuana Users.** Although latent class/profile analysis has been used in several studies to characterize overall patterns of substance use (Haas et al., 2015; Kelly et al., 2014), we are unaware of any studies that have attempted to identify subpopulations of marijuana users based on their patterns of marijuana use and consequences alone. Using a sample of college student marijuana users from an ongoing multisite study (current n=620) sampled from 11 US universities, we conducted a latent profile analysis with indicators of marijuana frequency and the experience of marijuana consequences as indicators. Based on the Lo-Mendell-Rubin Likelihood Ratio Test, we found 4 classes of marijuana users (relative entropy=.965). The classes included a large class of infrequent, recreational users (Class 1; n=372.25; 60.04%), a group of frequent, problematic users (Class 2; n=98.70; 15.92%), a group of moderate, recreational users (Class 3; n=104.42; 16.84%), and a small group of dependent, problematic users (Class 4; n=44.62; 7.2%). Using pseudo-class based multiple imputations, we examined a wide range of risk/protective factors that distinguish between these classes of marijuana users including personality traits, marijuana perceptions, and protective behavioral strategies. **Cynthia K. Wenzl BS, Alyssa R. Allen BS, Matthew R. Pearson PhD, Marijuana Outcomes Study Team**
- 25. Personality, Marijuana Perceptions, and Marijuana Outcomes among College Students.** Marijuana is the most commonly used illicit drug in the United States (SAMSHA, 2012). Given the potential likelihood of increased marijuana use in the United States, it is important to identify risk factors associated with the use of marijuana and consequences that result (Simons, Dvorak, Merrill, & Read, 2012). In the present study, we used path analysis to examine the direct and indirect effects of four distinct personality traits (hopelessness, sensation seeking, anxiety sensitivity, and impulsivity) on marijuana-related outcomes (marijuana use/consequences) via marijuana perceptions (descriptive norms, injunctive norms, marijuana internalized norms) and in a sample of college student marijuana users (current n=403). We found each perceptions variable partially mediated the effects of personality traits on marijuana-related outcomes. For example, descriptive norms partially mediated effects of hopelessness and sensation seeking on marijuana use and problems, whereas injunctive norms partially mediated effects of anxiety sensitivity on marijuana use and problems. These findings have implications for personality-targeted interventions in that they suggest that one could target specific marijuana perceptions according to the personality trait(s) that places an individual at risk. **Alyssa R. Allen BS, Natalie W. Wendel, Adrian J. Bravo MS, Kevin S. Montes PhD, Matthew R. Pearson PhD, Marijuana Outcomes Study Team**
- 26. An Examination of the Training and Practices of Cannabis Dispensary Staff.** As of 2015, 23 states and the District of Columbia have passed laws legalizing cannabis for medical purposes, with an additional 4 states legalizing cannabis for recreational use. This policy change has led to the proliferation of medical and recreational cannabis dispensaries. The purpose of this ongoing survey is to investigate cannabis dispensary staff (current N=27) on topics related to training and practice procedures. Preliminary data indicate that dispensary staff are predominately young (Mean age=33.4 years, SD=10.6), Caucasian (85%), female (56%), with 2-years of college education or higher (67%). They report prior training in customer service (41%), business (30%), scientific (22%) and medical (15%) fields. Overall, 96% of staff provide recommendations to patients, including: benefits of cannabis (67%); particular strains (74%); side effects (63%); and administration methods (74%). Recommendations for cannabis strains are based on patient ailments (67%), their own experience (44%), experience of other patients (59%), dispensary owner or staff (41%), scientific articles (48%), websites (37%), and patient preferences (63%). None of the dispensary staff report recommending other medications or substances to patients. This research will provide valuable information regarding training and practices of dispensary staff as a function of dispensary type (medical vs. recreational) and geographic location. **Dustin Kieschnick BA, James Sottile BA, Robin Brody BA, Kimberly Babson PhD, Marcel Bonn-Miller PhD, Nancy A. Haug PhD**

## Saturday March 19 5:00 PM – 6:30 PM

- 1. Building Relationships, Promoting Health: A Preliminary Evaluation of a Culturally Based Substance Abuse Prevention and Outreach Program in a University Setting.** This poster reports a multicultural outreach intervention program and preliminary evaluation of a novel treatment, which consists of a culturally based practice of substance use/abuse prevention, health psychoeducation, and outreach intervention to advance the health of underserved students at Washington State University. This is a culturally-based prevention and intervention model that applies empirically-based strategies in conjunction with culturally-focused strategies in a comprehensive program, which utilizes the peer/professional liaison model and the use of various education modalities. This targeted intervention is focused on interrelated mental health concerns regarding substance use, mental health issues and comorbidity, violence, sexual decision making, sexual consent and other health topics relevant for specific racial/ethnic populations and socioeconomically disadvantaged groups including African American students, Native American students, Latino/a & Chicano/a students and Asian American Pacific Islander students. Participants will report an increased level of comfort in accessing counseling services, an intent to change one's action or health behavior after the presentation, and reflective intention to care for others as peers/bystanders. **Alicia San Miguel BS**
- 2. Substance Abuse among American Indians and Alaska Natives: An Integrative Conceptual Model for Advancing Research.** Research consistently highlights the prevalence of substance-related psychopathology in the American Indian/Alaska Native (AIAN) population. Recent epidemiological literature suggests that these trends are not diminishing, despite decades of etiological work and prevention programs. The aim of this paper was to examine the literature on risk and protective factors for substance-related psychopathology in the AIAN population from the perspective of Betancourt's Integrative Model of Culture, Psychological Processes, and Behavior (1993, 2010, 2011). This model specifies the structure of relations among socio-structural (e.g. income and education), cultural (e.g. values and norms), and psychological (e.g. cognition and emotion) factors influencing behavior. An analysis of 44 of the reviewed articles revealed that the factors investigated in relation to substance-related psychopathology have typically been studied independently of each other. Also, most studies deal with factors (e.g. socio-structural) that are rather distal from behavior. Results suggest that research on the interrelations among cultural and psychological, in addition to socio-structural, determinants may enhance our understanding of substance-related psychopathology in this population. To this end, suggestions for future research are derived from results of the studies reviewed. Such theoretically driven research may contribute to more effective interventions and the reduction of substance-related disparities among the AIAN population. **Hyo Jin Lee, Blake Hilton MA, Hector Betancourt PhD, Holly E. R. Morrell PhD, Patricia M. Flynn PhD**



**Saturday March 19 5:00 PM – 6:30 PM**

- 3. Adaptation of Computer-Based Training for Cognitive Behavioral Therapy in Addictions Treatment with Latinos.** The field remains challenged by the limited availability of culturally and linguistically adapted interventions that are sensitive to the needs and preferences of underserved communities. The demand is particularly salient in addiction treatment settings serving Spanish-speaking Latinos vulnerable to an additional range of psychosocial stressors that often include unemployment, limited access to medical care, substandard housing, and for some, an uncertain residency status. Based on the demonstrated success of the original computer-based training for cognitive behavioral therapy program (CBT4CBT), the authors propose a cultural adaptation designed for Spanish-speakers. The adaptation is informed by Latino cultural values that influence core elements of behavior change and decision-making, and is designed to be consistent with cognitive-behavioral skills training. Specifically, this CBT4CBT program utilizes a telenovela (soap opera) to teach participants enrolled in a randomized clinical trial to recognize triggers and situations that increase their risk for use; avoid these situations when appropriate; and cope more effectively with the consequences of substance use. The program and content adaptation are illustrated with particular attention to the integration of Latino cultural values in storyline and character development. **Michelle Silva PsyD, Luis Anez PsyD, Kathleen Carroll PhD, Brian Kiluk PhD, Samuel Ball PhD, Melissa Gordon BA, Manuel Paris PsyD**
- 4. Respondent-Driven Sampling among Sexual Minorities: Testing Innovative Sampling Methods for Rare Populations.** A growing body of research on sexual minority women has revealed an array of health disparities and vulnerabilities, including significantly higher rates of hazardous drinking, tobacco use, and drug use compared to heterosexual women. Despite this knowledge, methodological limitations, such as community or volunteer-based samples and limited assessment measures, have hindered generalization and understanding of protective and risk factors within this population. The current study is the first to launch a national oversample of sexual minority women through the use of respondent driven sampling (RDS) with "seeds" from a national probability sample. Derived from the principles of chain sampling approaches, this strategy samples networks rather than individuals, by identifying individuals with desired characteristics as starter seeds, who then recruit others like them or who meet specific conditions. RDS has demonstrated to be effective in sampling hidden populations within small regions but has not been applied or tested at a national level. Strengths and weaknesses of utilizing RDS within a national probability sample will be discussed in this presentation (which is currently in the field). We will assess the feasibility of RDS for future studies of sexual and other minority groups to better understand health disparities in statistically small populations. **Jamie L. Klinger MA, Karen Trocki PhD, Laurie Drabble PhD**
- 5. Relationship Status Patterns and Substance Use: Comparison of Heterosexual and Sexual Minority Women.** A consistent pattern in the substance use/abuse literature has been the strong protective role that marital status plays on substance abuse disorders. Furthermore, marital status is also protective across a whole range of mental health problems. However, the mechanisms underlying this protective factor are poorly understood in the general population and virtually un-researched in the LGBT population. Methods: Data from 10 years of cross-sectional data from the National Alcohol Study (2000-2010) were combined to create a sample of over 20,000 respondents, half of whom are female. A dichotomous hazardous drinking index was created. Preliminary Results: Married heterosexual women have low rates of substance use problems (7.5%) compared to women in cohabiting situations (19.2%) and never married (23.7%) ( $\chi^2=185.2, p<.000$ ). Although few sexual minority women are married, those who are cohabiting as though married (24.0%) and those who were never married (43.4%) show a larger discrepancy ( $\chi^2 15.3, p<.004$ ). Mediators and moderators of this relationship will be presented. **Karen Trocki PhD, Jamie L. Klinger MA, Laurie Drabble PhD**
- 6. The Effects of Age, Sexual Sensation Seeking, and Alcohol on Determinants of Sexual Risk Among Men Who Have Sex with Men.** Men who have sex with men (MSM) are at risk for problematic alcohol use and HIV. Attempts to reduce risk may be best served by identifying factors contributing to these risks. Research suggests sexual sensation seeking (SSS) and age may moderate the relationship between alcohol use and sexual risk behaviors<sup>1-4</sup>. However, these studies are retrospective and evidence of SSS moderation was not found in a controlled alcohol administration study<sup>5</sup>. Additionally, studies examining age showed mixed results<sup>2-3</sup>. We sought to further elucidate the moderating effect of SSS and age on the relationship between alcohol use and indicators of sexual risk (i.e., intentions and behavioral skills) via a controlled laboratory study. Participants, 117 MSM (21-50 years), were randomly assigned to a beverage condition (alcohol or non-alcohol). Hierarchical regression analyses that controlled for social desirability showed a main effect of alcohol condition, SSS, and age; SSS moderation was found in the skills data. Simple slopes analyses revealed significant skills deficits among individuals when consuming alcohol and MSM who were high in SSS experienced significantly more deficits than low SSS individuals. Findings suggest the importance of identifying MSM who are high in SSS, as they are at increased sexual risk, particularly when consuming alcohol. **Dezarie Hutchison BA, Kaylin G. Cottone AA, Stephen A. Maisto PhD, Tibor Palfai PhD**
- 7. Examining Changes in PTSD Alcohol Expectancies as a Predictor of Post-Treatment Drinking, Cravings, and PTSD symptoms among Veterans in a Substance Use Residential Rehabilitation Treatment Program.** Positive alcohol expectancies are well known to predict drinking outcomes; however there is little known about PTSD related alcohol expectancies (PAEs) and whether they are associated with drinking outcomes and/or PTSD outcomes. Utilizing a sample of Veterans (N=41, 95% males, mean age=42.61) diagnosed with both PTSD and alcohol use disorders receiving treatment in a 4-6 week substance abuse residential rehabilitation treatment program (SARRTP), this study tested whether there were significant decreases in positive PTSD alcohol expectancies (beliefs that using alcohol improves PTSD) or increases in negative PTSD alcohol expectancies (beliefs that alcohol makes PTSD worse) following treatment, and whether changes in PAEs were associated with changes in drinking, cravings to drink, or PTSD symptoms. Results from paired t-tests indicated significant improvements in positive PAEs from pre-treatment to 3 months post-treatment but not negative PAEs. Further, changes in both positive PAEs and negative PAEs from pre-treatment to 3 months post-treatment were significantly associated with improvements in cravings to drink but not with improvements in frequency of drinking or PTSD symptoms. Findings provide tentative evidence that changing beliefs about the effects of alcohol on PTSD may have implications for drinking outcomes among individuals with comorbid PTSD/AUD. **Emma Siegel BA, Moira Haller PhD, Abigail Angkaw PhD, Peter Colvonen PhD, Brittany Davis PhD, Sonya Norman PhD**
- 8. Cessation Treatment Engagement for Psychiatric Inpatient Smokers with Comorbid Substance Use Disorders.** Proactive screening and brief Motivational Interviewing (MI) within inpatient psychiatric services may increase engagement with evidence-based outpatient cessation programs. However, presence of comorbid substance use disorder (SUD) and psychiatric illness may hinder treatment engagement. Objective: The purpose of this study is to compare tobacco use, quitting attitudes and cessation treatment engagement among psychiatric inpatient smokers with and without SUD who received either MI or referral materials alone. Inpatient smokers completed clinical diagnostic interviews (SCID), Timeline Follow Back (TLFB), Patient Health Questionnaire (PHQ) and the Fagerstrom Test for Nicotine Dependence (FTN). Of the 80 smokers, 61 had a concurrent SUD (AUD: n=47; DUD: n=14). Smokers with or without SUD did not report differences in nicotine dependence, history of quitting or motivation to quit ( $p>.10$ ). Smokers with SUD reported greater current symptoms of tobacco-related disease (OR=6.6,  $p<.01$ ) and impact of tobacco use on physical activity (OR=3.8,  $p<.01$ ). Cessation engagement rates were significantly higher in both SUD and non-SUD patients receiving MI vs referral materials (OR=4.43, 95%CI: 1.15-17.04). Proactive brief MI during inpatient psychiatric care may increase engagement in evidence-based cessation success among comorbid smokers with SUD and other severe mental health complications. **Madison Noble BA, David Lee BS, Carlo Mazzaferro BS, Annie Lei BS, David Strong PhD, Mark Myers PhD**

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- 9. Co-Occurring Substance Use Disorders, Current Alcohol Use, and Level of Suicidal Ideation During Inpatient Psychiatric Hospitalization.** This study compared the prevalence of suicidal ideation among psychiatric inpatients who endorsed current alcohol use or had diagnoses of co-occurring substance use disorders with the prevalence of suicidal ideation among inpatients without co-occurring substance use. Participants (n=126) were recruited from an acute inpatient psychiatric hospital located in a diverse urban community in California. Level of suicidal ideation was assessed upon admission to a psychiatric emergency room and within two days of discharge from psychiatric hospitalization. The Brief Psychiatric Rating Scale Expanded Version (BPRS-E) was used as a measure of psychiatric symptom severity. A chi-square test indicated a significant relationship between endorsement of current alcohol use and endorsement of suicidality upon admission,  $\chi^2(1, N=126)=4.498, p=.034$ . Participants who endorsed current alcohol use upon admission and those with a history of co-occurring substance use disorders also tended to indicate higher levels of suicidality on the BPRS-E prior to discharge ( $M=1.93, SD=1.37$ ),  $t(58.015)=-2.258, p=.028$ , and ( $M=1.75, SD=1.257$ ),  $t(92.55)=-2.237, p=.028$  respectively. These findings suggest a need for clinical interventions for patients with current alcohol use or co-occurring substance use diagnoses at the time of discharge from psychiatric hospitalization. **Sarah Schubmehl MA MEd, Melissa O'Donnell MS, Aquila Richardson MA, Jennifer Bielenberg MS, Gregory Katzen MS, Avivah McPherson MA, Samuel Barkin MA, David Sugarbaker MS, Doug Cort PhD**
- 10. The Impact of Depressive Symptoms and Substance Use Severity on Treatment Outcome in an Integrated Care Setting.** Identifying predictors of successful outcomes in patients with co-occurring depression and substance use disorders is critical given the persistence, severity and treatment resistance of dually-diagnosed patients. Though these constructs are highly correlated, depression and substance use have not been examined sufficiently together in order to evaluate interaction effects. Within an integrated treatment setting, this study examined the predictive relationships of both depression and substance use severity on substance use treatment outcome. Participants (n=55) included 40.4% female, 89.5% white and 58% full-time employed. Measures included the Center for Epidemiologic Studies Depression Scale (CES-D) and DSM-5 criteria for substance use severity. The outcome variable was change in substance use from baseline to three months as measured by the Timeline Followback. Multiple regression analysis indicated that substance use severity had a minimal relationship with change in substance use at 3 months, and this relationship disappeared when controlling for depression. Depression was a strong predictor, and that relationship remained robust when controlling for substance use severity. Patients with clinical levels of depression showed greater improvement in substance use outcome than those without clinical depression. Given the importance of depression to outcomes, integrated treatment for substance use disorders is recommended. **Emily Kaiser MA, Brian Sherman PhD, Carrie Wilkens PhD, Jeffrey Foote PhD, Nancy Haug PhD**
- 11. Gender Differences in the Indirect Effects of Childhood Trauma on Alcohol-related Problems through Anxiety.** Childhood trauma is related to anxiety and depression (Hovens, et al, 2009), both of which are associated with increased risk for alcohol-related problems. Given evidence of gender differences in relations between anxiety disorders and alcohol problems (Vesga-Lopez, et al., 2008), effects of childhood trauma on alcohol-related problems may also differ by gender, particularly if effects are mediated by anxiety. Although we are not aware of any studies examining this possibility, Heim, et al. (2001) highlighted the need for research on gender differences in relations between childhood trauma and internalizing problems. We examined the hypothesis that indirect effects of childhood trauma on alcohol problems through higher levels of anxiety would be stronger for men than women. The sample included 201 young adult heavy drinkers (62 women; 122 men with complete data) assessed prior to randomization into a clinical trial of naltrexone plus a motivational intervention for drinking reduction. Tests of moderated mediation identified a significant indirect effect of childhood trauma on alcohol-related problems through greater anxiety for men,  $b=22.44, SE=6.11, p<.001$ , but not women,  $b=3.99, SE=6.71, p=.55$ . These findings suggest that it may be important to address issues related to childhood trauma among men with comorbid anxiety and alcohol problems. **Jasmine Eythrib, William R. Corbin PhD, Stephanie S. O'Malley PhD**
- 12. The Commitment to Quitting Smoking Scale: Initial Psychometric Examination for Smokers with Mental Illness.** Cigarette smoking rates among U.S. adults with mental illness are approximately double the rate for adults in the general population. Because of the high rates of current tobacco use among people with mental illness, it is essential to determine key constructs with good reliability and validity that can aid in treatment to promote cigarette cessation. / The present study is an initial examination of the psychometric properties of the Commitment to Quit Smoking Scale (CQSS) in a sample of smokers with mental illness. The CQSS is intended to assess a person's intention to persist with smoking cessation despite obstacles (e.g. withdrawal, craving, negative affect). / The sample consisted of 62 military veterans with psychiatric disorders (98% male, 47% White). Analyses examined the construct and discriminant validity and internal consistency of the scale. The CQSS was positively correlated with confidence in quitting ( $r=.261; p<.05$ ), desire to quit ( $r=.387; p<.01$ ), and importance of quitting ( $r=.388; p<.01$ ). No significant relationship was found between the CQSS and psychiatric symptoms or demographics. The scale demonstrated high internal consistency ( $\alpha=.87$ ). / The analyses provide initial evidence for the CQSS as a valid and reliable scale for use with smokers with psychiatric disorders. **Erick Idy BA, Timothy Chen PharmD, Mark Myers PhD**
- 13. Higher Rates of Readmission to Inpatient Psychiatric Hospitalization for Patients with Substance Use Disorders.** Research highlights considerable comorbidity between serious mental illness and substance use disorders (SUD). Many of these patients are underserved, and frequently access emergency mental health services. This study examined data from 137 psychiatric inpatients. The sample included 39.4% female, 37.5% African-American, 94.2% single/unmarried and 91.2% unemployed. Independent samples T-tests were used to compare outcome differences between patients diagnosed at admission with SUD and those without SUD. Results showed that although length of stay and overall psychiatric symptoms did not differ significantly between groups, patients with SUD were significantly more likely to have been admitted to the hospital in the past 12 months than those without SUD ( $t=-2.137, p<.05$ ). Patients with SUD also had a higher number of visits to Psychiatric Emergency Service during the past 12 months compared to non-SUD ( $t=-2.336, p<.03$ ). Psychosocial interventions within inpatient psychiatric settings should consider identifying and addressing unmet treatment needs of those with co-occurring SUD. **Melissa O'Donnell MS, Jennifer Bielenberg MS, Sarah Schubmehl MA, MEd, Gregory Katzen MS, Raquel Osorno MS, Aquila Richardson MA, Avivah McPherson MA, Samuel H. Barkin MA, David Sugarbaker MS, Doug Cort PhD**
- 14. Tripping Therapists? Ethics in the Revival of Psychedelic Therapy for Addictive Disorders.** Research on psychedelic therapy for addictive disorders is seeing a revival after a 25-year hiatus. Its cessation in the mid 1970's was in part due to the unresolved ethical question of whether psychedelic therapists should have a personal experience with the psychedelic being used for therapy or not. Some argued that therapists' and researchers' ability to evaluate their findings was hindered by their own use of psychedelics. Others argued that such use was necessary to ensure the best possible therapeutic alliance. The influence of psychedelic therapists' personal experience with psychedelics on therapy outcomes remains open to debate. This poster will present past and current research on psychedelic therapy for addictive disorders, the history of the debate over whether psychedelic therapists should or should not have experience with psychedelic drugs, and discuss past and present efforts to provide psychedelic therapists with opportunities to experience psychedelics in a clinical setting. In addition, I will provide preliminary data from a current qualitative study of all psychedelic therapists who are currently involved in clinical trials of tryptamine psychedelics in the US. These data include demographics, training, personal experience with psychedelics, and views on the influence of personal use of psychedelics on the therapeutic alliance. **Elizabeth M. Nielson PhD**

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- 15.The Relationship Between Self-Efficacy and EMA Compliance in Drinking Reduction Outcomes.** Self-efficacy has been shown to be integral to drinking reduction. Recent research highlights that Ecological Momentary Assessment (EMA) is a reliable and valid means to collect self-efficacy ratings and that higher self-efficacy ratings are predictive of improved drinking outcomes. Because EMA compliance may improve outcomes through goal salience reactivity, we assessed whether the relationship between EMA compliance and self-efficacy impacts drinking outcomes. This study analyzed data from a larger study in which participants were randomly assigned to one of two therapy conditions or a self-change control group to reduce drinking. EMA surveys were administered to participants two times per day across seven weeks of the 9-month study. The surveys contained a question on confidence in ability to resist heavy drinking. EMA compliance was measured by the number of times participants completed this question. We hypothesized that over the treatment period of the first 8 weeks, EMA compliance would moderate the impact of confidence on drink reduction such that high confidence would predict greater drink reduction in a high compliance group and low confidence would predict a lesser drink reduction in a high compliance group. . Results for 96 participants will be presented. **Danusha Selva Kumar BA, Jessica Houser PhD, Sijing Shao MA, Jon Morgenstern PhD**
- 16.Patterns of Heavy Drinking During and Following Treatment: Stability and Change in the COMBINE Study.** This study is a secondary analysis of data from the COMBINE study (Anton et al., 2006). The goals of the study are two-fold: (1) to gain a better understanding of the rates and patterns of heavy drinking among individuals with alcohol use disorders enrolled in the COMBINE study across three different clinically relevant time epochs: during treatment, in the transition from receiving treatment to not receiving treatment, and up to 12-months following treatment; and (2) to determine, using Markov models, whether heavy drinkers are a homogenous or heterogeneous group of treatment non-responders in terms of their continuous drinking outcomes (e.g., percent drinking days; PDD, drinks per drinking day; DDD) during treatment. Results indicate that over 60% of individuals who are classified as “heavy drinking” in the last month of treatment, and are thus treatment non-responders, may go on to have relatively good outcomes, showing large reductions in both PDD and DDD. One-third of those classified as heavy drinkers may show large reductions in DDD, but still be drinking at the same frequency. Only a small percentage of individuals are seemingly total treatment failures, with modest reductions in PDD, but an increase in DDD. **Adam D. Wilson MS, Matthew R. Pearson PhD, Katie Witkiewitz PhD**
- 17.Mindfulness as a Mediating, Approach-Based Coping Style in the Trauma-Substance Abuse Cycle.** The association between trauma, substance use, PTSD and treatment trajectories has been well documented. Trauma history is associated with higher rates of substance use, severity of substance use consequences, and comorbid PTSD. This relationship can form a harmful feedback loop, with substance abuse exacerbating PTSD symptoms. As an avoidant coping strategy, individuals often seek relief through a substance. This strategy only temporarily mitigates discomfort, however, leading to longer-term negative consequences. An emerging body of literature suggests that mindfulness may be a protective factor in this trauma-substance abuse cycle, with several studies indicating mindfulness may be associated with reductions in trauma symptoms and substance use. Mindfulness-based programs may directly undercut the pattern of avoidance in those with experienced trauma, through gentle training in approach-based skills that allow the individual to explore and stay in contact with aversive experiences in a manner that may promote more skillful coping and habituation. The current study attempts to build upon a foundation of literature assessing effects of trait mindfulness in the trauma-substance abuse cycle by testing a model in which the relationship between trauma symptoms and substance use is mediated by mindfulness. **Aaron L. Bergman MA MS, Danielle De Boer BA, Sarah Bowen PhD**
- 18.“Ignore the White Bear:” Associations between Experiential Avoidance, Coping, Norms, and Drinking among College Drinkers.** The aim of this study was to examine the extent to which two empirically-supported predictors of college drinking, perceived norms and coping motivations, influenced the association between experiential avoidance (EA; cognitive and behavioral experiences intended to alleviate psychological distress) and hazardous drinking. Three-hundred and thirty three college students who met 4/5 drinking criteria completed baseline, 3-month, and 6-month follow-up surveys as part of a personalized normative feedback intervention. Relevant measures included the AUDIT, EA, motivations for drinking, and perceived norms. We analyzed the direct and indirect effect (i.e. moderated mediation) of EA at baseline on hazardous drinking at 6-months via coping at 3-months, controlling for sex, baseline drinking, and intervention effects. Mediation analysis indicated that although there was no direct effect of EA on hazardous drinking, there was an indirect effect via coping, such that there was a positive association between EA and coping, and coping and hazardous drinking. Moreover, drinking norms moderated the association between EA and coping, such that the more one perceived other college students drank, the stronger the association between EA and coping. Results suggest that EA and coping motivations may be useful constructs to consider, in addition to norms, in the adaptation of PNF interventions. **Dipali V. Rinker PhD, Clayton Neighbors PhD**
- 19.Passion for Religion, Perceived Stress, and Drinking.** A large literature suggests primarily negative associations between religiosity and alcohol use. Two types of passion, examined in multiple domains (e.g., sports, gambling, substance use), have been differentially associated with psychological and physical health indices. Harmonious passion for an activity is associated with engagement and enjoyment in balance with other priorities. Obsessive passion is also associated with engagement but is accompanied with disengagement difficulties and neglect of other activities. The present research considered the passion constructs applied to religiosity, with the expectation that harmonious and obsessive passion would have divergent associations with mental health and related alcohol problems. Participants included 707 college students who reported their levels of each of these constructs in a self-report survey. The initial hypothesis was that the relationship between religious passion and alcohol problems would be mediated by mental health outcomes. Mediation analysis revealed that both harmonious and obsessive passion for religion were related to alcohol problems through perceived stress, though in opposite directions. Results suggested that harmonious passion for religion can be conducive to decreased stress, and therefore to decreased drinking problems, while obsessive passion for religion can be detrimental to stress levels and drinking problems. **Mary M. Tomkins MS, Clayton Neighbors PhD, Mai-Ly Steers PhD**
- 20.Expressive Writing as a Brief Intervention to Reduce College Student Drinking.** College students are at increased risk for alcohol misuse compared to other adults, and development of efficacious intervention approaches is an urgent priority. The vast majority of individually-focused brief interventions targeting college drinking have focused on personalized feedback approaches and recent innovations have largely been limited to finer distinctions of these, which require assessment and programming for implementation. The present research describes three pilot studies establishing expressive writing as a novel alternative, which has been used extensively in other domains but not as an alcohol intervention strategy. First, we will describe the protocol and prompts for adoption of expressive writing as a brief intervention for drinking in college students. Second, we will present results from three pilot studies demonstrating efficacy of the intervention, which is moderated by baseline drinking levels. Third, we will show that the intervention is not equally efficacious and that intervention efficacy is moderated by various combinations of race, guilt, shame, self-consciousness, and baseline drinking. We will also demonstrate event-related guilt as an underlying mechanism. Implications and future research directions are discussed. **Lindsey M. Rodriguez PhD, Clayton Neighbors PhD**

**Saturday March 19 5:00 PM – 6:30 PM**

- 21. Comparison of Retrospective and Daily Diary Reports of Alcohol Protective Behavioral Strategies.** Alcohol protective behavioral strategies (PBS) are behaviors “behaviors that are used immediately prior to, during, and/or after drinking that reduce alcohol use, intoxication, and/or alcohol-related harm” (Pearson, 2013). Several cross-sectional and macro-longitudinal studies demonstrated that PBS use is reliability associated with decreased alcohol use and alcohol-related problems (Pearson et al; Prince et al., 2013). However, there have been no attempts to examine the correspondence between retrospective self-reports of PBS use and daily diary reports of PBS use. Based on a 14-day daily diary study examining PBS use and alcohol-related outcomes among 83 college student drinkers, we examined the descriptive statistics at the item, subscale, and total scale levels as well as the intercorrelations amongst these scales. We find modest to moderate correlations between retrospective self-report and daily diary reports of PBS use ( $.29 < r < .60$ ). Although the general rank order of most common to least commonly reported strategies were similar across retrospective and daily diary reports, a tendency to overestimate use of strategies on retrospective self-report measures was found. **Lizeth Cueto, Gabrielle M. D’Lima MS, Michelle L. Kelley PhD, Matthew R. Pearson PhD**
- 22. Subjective Intoxication Moderates the Association Between Protective Behavioral Strategies and Alcohol Problems.** The use of protective behavioral strategies (PBS) is linked to reductions in drinking and alcohol-related problems. Although moderators of the PBS/alcohol problems relationship have been identified (e.g., drinking refusal self-efficacy), no study has examined whether increased sensitivity to the acute effects of alcohol can disrupt the use of PBS. We tested the hypothesis that greater subjective intoxication (SI) impairs the implementation of PBS, therefore attenuating its negative association with alcohol problems. Participants ( $n=64$ ) completed a questionnaire battery, including the Protective Behavioral Strategies Scale (PBSS) and the Young Adult Alcohol Consequences Questionnaire (YAACQ). They then consumed either an alcoholic or placebo beverage. SI was assessed on both the ascending and descending limbs at matched breath alcohol concentration ( $\approx 0.067\%$ ). We tested the PBSS X SI interaction on YAACQ, controlling for alcohol use, using generalized linear models with a Poisson distribution. The interaction was significant on both the ascending and descending limb for the alcohol condition but not the placebo condition. Probing these interactions indicated that the magnitude of the negative PBSS/YAACQ association decreased as SI increased. These results suggest that greater SI may impair the ability to enact planned PBS, and therefore increase the likelihood of alcohol problems. **Laura E. Hatz BS, Kayleigh N. McCarty BS, Edward J. Koenig, Denis M. McCarthy PhD**
- 23. A Glass Full of Liquor Helps the Medicine Go Down: Contraindicated Alcohol Consumption and Prescribed Medication Use.** Hazardous alcohol consumption has been consistently found to be positively associated with negative outcomes among college students. Depression, anxiety, and ADHD are common in this population and combining alcohol with medications commonly prescribed for these and other problems are usually contraindicated. The majority of research on medication use and alcohol consumption has focused on student non-prescription medication use and has not specifically examined compliant medication use compared to contraindicated alcohol use in individuals with a prescription medication. This study attempted to bridge this gap by examining non-compliant medication use, contraindicated medication and alcohol consumption, motives for drinking alcohol, and medication adherence. A sample of 222 students taking prescription medication for at least one of five common conditions (anxiety, depression, ADHD, pain, and sleep) completed an online survey reporting their prescription medications, alcohol consumption, and problems. Results revealed weekly drinking and coping motives to be uniquely associated with more, contraindicated drinking with prescribed medications. Additionally, medication adherence was marginally associated with more contraindicated drinking, and conformity motives were associated with less. This work has to potential to fill an important gap in the literature by providing preliminary examination of factors associated with contraindicated drinking and legal prescription use for common psychopathologies. **Heather Krieger MA, Clayton Neighbors PhD**
- 24. The Impact of Pain Medication Policy on Opioid Use Trends.** Over the last decade Florida has received national attention regarding increased prescription opioid misuse and dispensation. In 2010, statewide policy initiatives to address these issues were implemented. Our laboratory gathered data from North Florida treatment facilities during periods preceding (2006-2009) and following (2014-2015) these policy initiatives, presenting a unique opportunity to interrogate policy effects. Participants reported their most frequently used substances in the six months before treatment. Endorsement of prescription- and illicit-opioid use was compared between pre- and post-policy cohorts using chi-square analyses. A greater percentage of the post- vs. pre-policy cohort endorsed opioid use (45% vs. 20%), including prescription (36% vs. 17%) and illicit (18% vs. 6%) use. Participants were sub-grouped by opioid use patterns: prescription-only, illicit-only, or concurrent prescription/illicit use. Among opioid users, sub-group analyses revealed a greater proportion of concurrent users and a smaller proportion of prescription-only users in the post- vs. pre-policy cohort. Equivalent proportions of illicit-only users were observed. Results suggest shifts in opioid-use patterns across pre- and post-policy periods. Although speculative, these data might reflect supplementation with illicit opioids among individuals whose access to prescription opioids has been restricted by recent legislation. Whether policy changes are causally related to these shifts remains in question. **Lauren A. Hoffman MS, Ben Lewis PhD, Sara Jo Nixon PhD**
- 25. Blending Public Policy, Public Interest, and Opioid Dependence: A Review of Literature and Directions for Future Research.** Recent estimates suggest roughly 2 million people in the United States are currently opioid dependent, with unintentional overdose deaths quadrupling since 1999 (National Institute on Drug Abuse, 2014). Furthermore, research has found that a disproportionate number of opioid-dependent people come from low socioeconomic backgrounds (i.e., Branstetter et al., 2008). While evidence of effective treatments for opioid dependence (i.e., Krupitsky et al., 2013; Weiss et al., 2011) have been identified, effort to make these effective treatments easily accessible to those in need remains stagnant (i.e., Matusow et al., 2013). This poster reviews literature on opioid dependence and conceptualizes the problem within literature on public policy. Factors influencing the level of public interest in combating opioid dependence, such as the Issue-Attention Cycle (Downs, 1972) and the Agenda-Setting Hypothesis (Iyengar & Kinder, 1987), are discussed. Suggestions for future research and methods of increasing public interest in treating opioid dependence are presented. **Brian Fitts MA**
- 26. Naloxone and Opioid Overdose Education on Twitter: Facilitating Community Engagement.** Opioid overdose education and naloxone training are needed to reduce provider stigma and improve treatment outcomes. Various social media platforms are being used to provide targeted information and public health interventions in the realm of addiction treatment. This study examined the utility of a Twitter profile, which provides frequent tweets (e.g., news, scientific articles) about opioid overdose management for professional first responders. The purpose is: 1) to determine whom the site is reaching; and 2) to characterize the type of content that produces the highest level of community engagement. To date, The Twitter site has 321 followers with 297 who list legitimate (non-spam), public profiles. Adhering to ethical guidelines for Twitter research, public followers were observed to determine the profile’s reach. Followers consist of a broad range of groups: individuals ( $n=61$ ); advocacy ( $n=41$ ); community ( $n=36$ ); media ( $n=22$ ); academia ( $n=20$ ); physicians ( $n=19$ ); health systems, insurance or pharmaceutical companies ( $n=18$ ); police officers ( $n=16$ ); politicians ( $n=15$ ); businesses ( $n=10$ ); emergency medical services ( $n=9$ ); treatment programs ( $n=8$ ); firefighters ( $n=7$ ); governmental ( $n=7$ ); legal ( $n=5$ ); and students ( $n=3$ ). Data analyses examine user engagement (i.e., retweets, favorites) with various Twitter content. Social media can be used as a tool for provider education given its wide reach and accessibility. **Lamisha S. Muquit BA, Sara Krasner MA, Jennifer Bielenberg MS, Steven H. Linder MD, Nancy A. Haug PhD**



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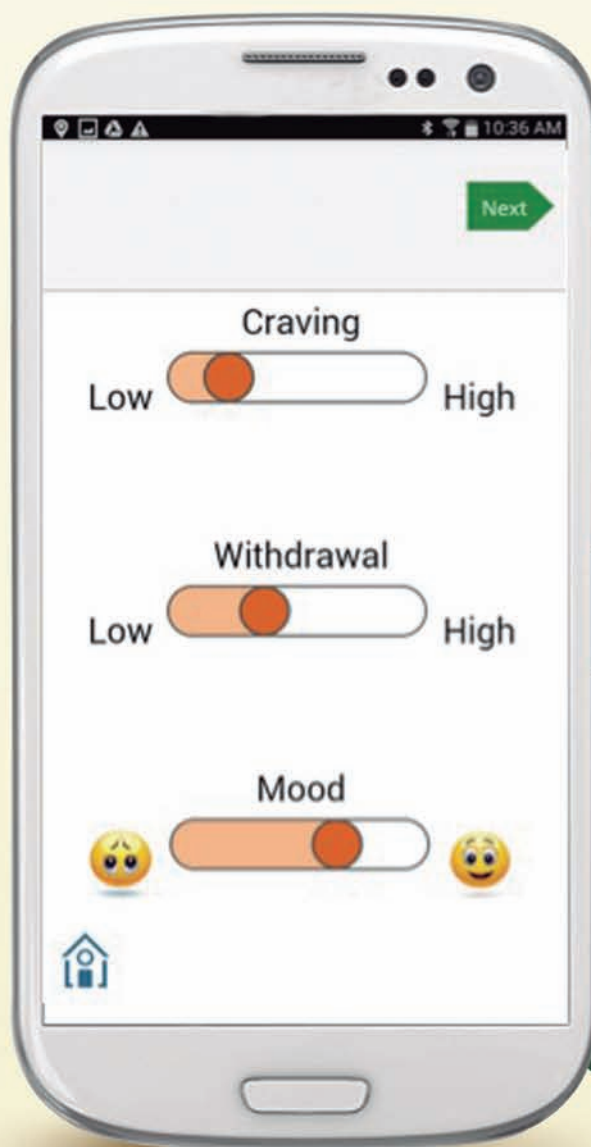
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For more information on our postdoctoral program, contact the Research Institute on Addictions at 716-887-2566 or visit [buffalo.edu/ria](http://buffalo.edu/ria).

# SCHEDULE AT A GLANCE

Friday March 18		Cortez Ballroom	
	Cortez A		Cortez C
7:00 AM	Registration		
8:00 AM	<b>Pre-Conference Workshops (see Page 6 for details)</b>		
9:00 AM	8am – 12pm Mindfulness-Based Interventions for Alcohol and Substance Use Disorders		
10:00 AM	8am – 12pm Cannabis: Assess, Advise, Educate, Prevent, and Treat		
11:00 AM	10am – 12pm A Look Inside the Funding Process at NIAAA		
12:00 PM	Registration		
1:00 PM	Opening remarks		
1:15 PM	<b>Keynote Address</b> Drinking, Binge Drinking, and Alcohol Related Problems among U.S. Hispanics Raul Caetano <b>1.0 CE</b>		
2:15 PM	Community-based Culturally Adapted Substance Use Disorder Interventions for American Indians and Alaska Natives <b>1.25 CE</b>		
3:30 PM	<b>Coffee Break – Sponsored by the University of Florida Addiction Science</b>		
3:45 PM	Community-based 12-Step Programs <b>1.25 CE</b>	Contribution from Psychology to Understand Low Risk Drinking <b>1.25 CE</b>	
5:00 PM	Break		
5:30 PM	<b>Posters &amp; Social Hour – Cabrillo Loft</b>		
Saturday March 19		Cortez Ballroom	
	Cortez A		Cortez C
8:30 AM	Updated on SMART Recovery: Science-based, Self-Empowering Mutual Help <b>1.0 CE</b>	The Sociopharmacology of Health Disparities in Addiction <b>1.0 CE</b>	
9:15 AM	Break		
9:30 AM	Role of Race, Ethnicity, and Related Factors in Substance Use Patterns	New Evidence of Risks of Mixing Alcohol and Energy Drinks <b>1.25 CE</b>	
10:45 AM	<b>Coffee Break – Sponsored by the UCSD Eating Disorders Center</b>		
11:00 AM	Evaluating Treatment Outcomes for Veterans <b>1.25 CE</b>		
12:30 PM	<b>Networking Lunch – Featuring NIAAA Director Dr. George Koob</b>		
1:30 PM	<b>Poster Session – Cabrillo Loft</b>		
2:30 PM	Recent Advances in Young Adult Substance Abuse Prevention	Effects of Problematic Substance Use In Chronic Pain <b>1.25 CE</b>	
3:45 PM	Break		
4:00 PM	<b>Keynote Address Sponsored by Practical Recovery:</b> Neuroimaging Findings in Youth: Does Teenage Substance Use Harm the Brain? Susan Tapert <b>1.0 CE</b>		
5:00 PM	<b>Awards Ceremony – Cortez Ballroom</b> <b>Posters &amp; Social Hour – Cabrillo Loft</b>		