### Presentation Title
Three Approaches to Workplace Alcohol, Drug, and Rx Prevention: 20 Years of Research-to-Practice

### Place in Schedule
Concurrent Session 2.6  
Day 2 – Wednesday  
May 9th, 2018  
2:30 – 3:45pm

### Description of Presentation
Three Approaches to Workplace Alcohol, Drug, and Rx Prevention: 20 Years of Research-to-Practice  
PROBLEM: Worker alcohol and other drug (AOD) problems remains an employer problem despite the presence of drug-free workplace policies and evidence-based prevention programs. METHODS. This symposium reviews practices drawn from the panelist’s 20 years of (a) research: developing, implementing, and testing interventions (e.g., in randomized clinical trials); and (b) dissemination/research-to-practice. INTERVENTION: Three distinct models have been tested and applied in various industries and occupations (including internationally). Each presenter will describe theory behind the model, curriculum/content, and summarize results, including brand new findings.  
RESULTS. A summary will discuss successes and challenges with dissemination, highlighting insights for any workplace research-to-practice effort.  
First, we describe team-based curriculum shown effective in reducing AOD risks, stress, and stigma. Based on a theory of worker AOD risk (Bennett, Lehman & Reynolds, 2000), the training views AOD misuse as influenced by factors at both the workplace and the individual levels (cf. Brief & Folger, 1992). The Team Resilience program was rooted in principles of positive psychology, well-being, and resilience (e.g., Masten, 2001; Seligman & Csikszentmihalyi, 2000), and studies of work-life balance risks among young workers (Bennett et al., 2006). The first presentation will present a meta-analysis of several different studies (including independent replications) of these programs.  
The second module targets risk for prescription drug (Rx) and Opioid misuse. This module discusses “Health Consciousness” (HC) as protective factor. The concept of HC has special application for Rx.

### Presenter Name(s) And Credentials
<table>
<thead>
<tr>
<th>Presenter Name(s) And Credentials</th>
</tr>
</thead>
</table>
| Shawn Reynolds, PhD  
Organizational Wellness & Learning Systems |
| Joel Bennett, PhD  
Organizational Wellness & Learning Systems |
| Gale Lucas, PhD  
Organizational Wellness & Learning Systems |
| Brittany Linde, PhD  
Organizational Wellness & Learning Systems |
| Michael Neeper, MA  
Organizational Wellness & Learning Systems |
drugs, especially with current tendencies amongst physicians to over-prescribe (Sacarny et al., 2016), direct-to-consumer advertising of Rx drugs (Aikin et al., 2016; Mackey & Liang, 2015), and reports of growth of Rx misuse inside the workplace (Cerdá et al., 2017; Held, et al, 2016, Hersman, 2017).

Employees’ pain and related musculoskeletal problems – in addition to impact on productivity and medical costs (e.g., Schwatka et al., 2017; Stewart et al., 2003) – are a risk factor for opioid misuse, and a growing concern for employers (e.g., Hersman, 2017). Research will be reviewed showing pre-to-post changes in HC in a sample of workers from diverse workplaces and a new model for testing HC interventions.

The third program, traditionally known as Screening, Brief Intervention, and Referral to Treatment (SBIRT), was adapted into an electronic/gamified program, linking wellness (screening) and employee assistance services (referral). SBIRT has been previously shown in effective in primary care settings. However, while evidence-based screening for alcohol problems is available, it is not currently incorporated into routine use (CASA, 2012), especially in the work setting. An increasing number of employers are using Health Risk Appraisals (HRA), including alcohol screens, as part of their wellness programs, but few use the feedback opportunity to educate and refer at-risk workers to the Employee Assistance Program (Osilla, de la Cruz, Miles, Zelmer, Watkins, Larimer, & Marlatt, 2010). Many workplaces have EAP services that are missing an opportunity to receive referrals through the wellness approach (Attridge, 2005). The electronic program was tested in a randomized trial and also shown effective in reducing Rx and stress risks in a sample of employees from diverse workplaces.

SESSION 1
Team-Based Approaches to Employee Alcohol and Drug Prevention: Ten Implementation Studies
PRESENTERS: Reynolds & Bennett
Between 1990 and 1998, the Institute of Behavioral Research at Texas Christian University (IBR/TCU)
conducted a series of workplace-related projects to assess employee risk and protective factors associated with alcohol and drug (AOD) use. This included assessing correlates of various job behaviors, such as withdrawal and antagonism (Lehman & Simpson, 1992); contributions of both personal and job factors (Lehman, Farabee et al., 1995); workplace drinking climate and stress (Bennett & Lehman, 1997); and the multi-level influence of work group membership on AOD risk. These and other findings were synthesized into a grounded theoretical model that led to the creation of a comprehensive AOD prevention program for the workplace, titled Team Awareness (Bennett, Lehman & Reynolds, 2000).

Since 1998, both original and adapted versions of the program have been assessed for a total of ten different evaluation studies. This includes the following groups: (1) Small Municipality – Texas; (2) Large Municipality – Safety Sensitive Occupations – Texas; (3) Large Municipality – South Africa; (4) Small Businesses – Texas; (5) Corporate Restaurant Chain – Texas, Chicago; (6) Youth Corp Workers – Colorado, California; (7) Nursing Students – Oregon; (8) Electrician Apprentices – Oregon; (9) Engineers – Multi-cities; U.S.; (10) Varied Occupations – Multi-cities; U.S. As a result of these efforts, Team Awareness (TA) and its derivatives have been recognized in the National Registry of Evidence-Based Programs and Practices (NREPP, SAMHSA) and the U.S. Surgeon General as effective.

Also, a preliminary meta-analysis of these studies reveals positive outcomes that can be categorized in four different areas: a) Reduced Substance Use/Misuse (alcohol frequency, heavy drinking, binge drinking, job-related impairment, and drinking climates); b) Improved Work Climate (organizational wellness, coworker trust, hectic work pace, stigma); c) Improved Help & Care (willingness to seek help, seeking, help, EAP utilization, coworker responsiveness); and d) Coping & Resilience (work stress, personal stress, healthy unwinding, resilience).

This presentation will review these results and also discuss dissemination efforts. Because Team
Awareness and Team Resilience are in the NREPP system, the authors have been called upon to train trainers and set-up AOD prevention systems for various clients. To date, we estimate that the original curriculum (available at no cost via download) has been accessed by 1,000 individuals world-wide, and the authors have trained close to 100 individuals as trainers of the program, and together have reached over 100,000 individuals world-wide. The program was adapted by the U.S. National Guard as their flagship program, and has been used by various industries and Native American tribal government. Through these efforts, the authors have developed a consultation system to assist with dissemination.

SESSION 2
Health Consciousness and Prescription Drug Misuse Prevention: A New Model and Pilot Results
PRESENTERS: Linde & Neeper
Health consciousness (HC) is a concept and phrase used in both research and in health promotion. However, to date, studies have not specifically assessed HC in working adults. Improving employee health consciousness might serve as a protective factor against recent increases in worker stress, mental health, and substance abuse problems (APA, 2017; Bush & Lipari, 2015) and the impact of occupational stress on health (Olafsen et al., 2017) and employer medical costs (Goh, Pfeffer, & Zenios, 2015). The authors have developed several brief prevention-training programs, and have conducted several pilot studies to further explore and articulate this process model of HC for workplace training (Lucas et al., 2017; Neeper et al., 2016). For example, a six-item survey designed and implemented to assess participant opinions on prescription drug abuse and desire to learn more about prevention interventions (N = 68; Neeper et al., 2016). After introduced to a short prevention intervention, 91% of participants agreed that they would use content from the webinar to assist the employees at their organizations. This study provided support that the intervention webinar was beneficial to participants. Upon determination of potential utilization (Neeper et al., 2016), we concluded that it would ideal to conduct a full pre-posttest
analysis on these data. We also examined the efficacy of the intervention for a diverse sample of employees in hopes of showing its effectiveness via both Internet-delivered webinar and classroom delivery (Lucas et al., 2017). Results from 114 participants (pre- and post-questionnaires) showed that, compared with before the training, participants reported significantly more knowledge about prescription drug misuse and alternatives to prescription drug use after the training ($t(113) = 7.91, p < .001$). Moreover, the medium of presentation (ie. face-to-face vs webinar) did not significantly impact effectiveness of the training ($F(1,98) = 1.15, p = .29$). Thus, in both webinar and classroom formats, participants gained knowledge about alternatives to prescription drug use assists in the awareness of prescription drug use in general and in the workplace. Based on the results of the previous studies and work elsewhere, we have begun a “process analysis” of the HC construct as it applies to the prevention of prescription drug misuse in working adults, and conduced two pilot studies to support the development of this model (Bennett et al., in press). The first pilot ($n = 162$) evaluated a stress/resilience program (“Raw Coping Power”) that sought to improve worker ability to recognize and correct unhealthy coping behaviors. A second pilot ($n = 114$) evaluated a Rx misuse prevention program that sought to enhance awareness of HC as a protective factor. HC correlated to increased confidence in one’s ability to evaluate risks, and awareness of healthy alternatives. Work on HC, in combination with current results, informed the design of the new, process-oriented model of HC. Extant research, our recent studies, and this model offers ideas and methodology that future researchers can use to further explore the utility and effectiveness of brief HC interventions in work settings.

SESSION 3
Integrating SBIRT in Work Settings: Screening, Wellness, and Online Gamification
PRESENTERS: Lucas & Neeper
Integrated screening, brief intervention, and referral to treatment (SBIRT) make a simple and effective
strategy to address substance misuse and its consequences, improving public health. iLinkWell™ is an internet-based SBIRT program for the workplace. It was designed to reduce substance misuse among the workforce, by making SBIRT more available in the workplace, where it has been underutilized. iLinkWell™ includes screening with the Alcohol Use Disorders Identification Test (AUDIT), tailored feedback and information, and a learning game. As iLinkWell™ was designed as a web-based SBIRT protocol (Babor, McRee, Kassenbaum, Grimaldi, Ahmed, & Bray, 2007; Substance Abuse and Mental Health Services Administration, 2011), participants completed a screen for alcohol misuse/abuse, and, based on their scores, given immediate feedback about their drinking. Specifically, iLinkWell™ includes screening with the Alcohol Use Disorders Identification Test (AUDIT; Babor, Higgins-Biddle, Saunders, & Monteiro, 2001), tailored feedback and information. For example, those who scored as ‘Low Risk’ drinkers were recommended resources focused on staying at low, while those who scored as moderate risk (or greater) were given resources focused on reducing alcohol intake and EAP and/or support group contact information. A similar SBIRT protocol was used for stress. To further engage users, a learning game that compliments the logic of the iLinkWell™ system was available for download from app stores (e.g., for android or apple OS).

One hundred and eighty-one participants recruited through employers and Craigslist completed a fourmonth trial of the program (iLinkWell™), with 164 participants completing the study. Participants were randomly assigned to iLinkWell™ for 4 months, or a waitlist control. After, all reported on how many days a week they felt stressed, drank alcohol, and misused prescription drugs. They were also asked the extent to which they intended to reduce the number of drinks they consumed, from 1 (strongly disagree) to 7 (strongly agree).

T-tests examined post-test differences in outcomes between control (n = 89) and intervention (n = 75) groups. Participants who used iLinkWell™ reported feeling stressed for significantly fewer days a week
(M = 4.04, SD = 1.86) than the control group (M = 4.71, SD = 2.23; t(162) = -2.06, p = .04). Likewise, participants who used iLinkWell™ also reported misusing prescription drugs significantly fewer days a week (M = 1.01, SD = 0.12) than the control group (M = 1.38, SD = 1.26; t(162) = -2.53, p = .01). While means were in the same direction for number of days per week drinking alcohol (M = 2.55, SD = 1.52 vs. M = 2.80, SD = 1.74), the difference was not significant (t(162) = -0.98, p = .33). However, the difference in intentions to reduce the number of drinks consumed between participants who used iLinkWell™ (M = 3.23, SD = 2.24) and the control group (M = 2.64, SD = 202) approached significance (t(161) = 1.77, p = .08). Based on these results, iLinkWell™ can be used to improve the process of identifying and intervening with employees with stress or substance use issues. It also has the potential to reduce risks in other areas (e.g., mood, diet, exercise).