

The University of Southern Mississippi
The Aquila Digital Community

Faculty Publications

1-1-2017

Conformity Motives For Alcohol Use Are Associated With Risky Sexual Behavior Among Alcohol-Dependent Patients In Residential Substance Abuse Treatment

Sarah J. Bujarski
VA Nebraska-Western Iowa Health Care System

Daniel W. Capron
University of Southern Mississippi

Kim L. Gratz
University of Toledo

Matthew T. Tull
University of Toledo, matthew.tull@utoledo.edu

Follow this and additional works at: https://aquila.usm.edu/fac_pubs

 Part of the [Psychology Commons](#)

Recommended Citation

Bujarski, S. J., Capron, D. W., Gratz, K. L., Tull, M. T. (2017). Conformity Motives For Alcohol Use Are Associated With Risky Sexual Behavior Among Alcohol-Dependent Patients In Residential Substance Abuse Treatment. *Journal of Substance Use*, 22(5), 469-473.
Available at: https://aquila.usm.edu/fac_pubs/16756

This Article is brought to you for free and open access by The Aquila Digital Community. It has been accepted for inclusion in Faculty Publications by an authorized administrator of The Aquila Digital Community. For more information, please contact Joshua.Cromwell@usm.edu.



Published in final edited form as:

J Subst Use. 2017 ; 22(5): 469–473. doi:10.1080/14659891.2016.1245792.

Conformity motives for alcohol use are associated with risky sexual behavior among alcohol-dependent patients in residential substance abuse treatment

Sarah J. Bujarski¹, Daniel W. Capron², Kim L. Gratz³, and Matthew T. Tull^{3,*}

¹VA Nebraska-Western Iowa Health Care System, Omaha, Nebraska, USA

²Department of Psychology, University of Southern Mississippi, Hattiesburg, Mississippi, USA

³Department of Psychology, University of Toledo, Toledo, Ohio, USA

Abstract

Alcohol misuse is associated with a variety of negative outcomes, including risky sexual behavior (RSB). In an attempt to better identify the subset of individuals at greatest risk for these negative outcomes, a growing body of research has begun to examine the role of alcohol use motives in risk for alcohol use-related negative outcomes. Although the majority of research in this area has focused on coping motives, conformity motives may be particularly relevant to outcomes such as RSB. Specifically, conformity motives may operate as a proxy risk factor for RSB, reflecting the tendency to engage in interpersonally-oriented risk behaviors in order to avoid rejection, interpersonal conflict, or social ostracism. Therefore, the current study examined the relation between conformity motives for alcohol use and RSB in a sample of 94 patients in a residential substance abuse treatment center. Results indicated that conformity motives were associated with RSB above and beyond other motives for alcohol use, as well as relevant covariates. Findings support the notion that conformity motives may operate as a proxy risk factor that could assist in identifying individuals at elevated risk for engaging in RSB.

Keywords

Alcohol Dependence; Alcohol Misuse; Alcohol Use Motives; Risk Factors; Risk-Taking; Substance Dependence

Within the United States, approximately 17 million adults ages 18 and older have a current alcohol use disorder (AUD) and approximately 25% of alcohol users reported hazardous patterns of alcohol use (i.e., binge drinking) in the past month (Substance Abuse and Mental Health Services Administration, 2013). Alcohol misuse is also associated with a range of negative outcomes. Not only is it the 5th leading cause of premature death and disability (Lim et al., 2010), it is associated with increased risk for other psychiatric disorders (Grant et al., 2004), functional impairment (Berglund & Ojehagen, 1998; Salloum & Thase, 2000; Swartz et al., 1998), and frequent risk-taking behavior (Marcotte, Bekman, Meyer, & Brown,

*Corresponding Author: Matthew T. Tull, Ph.D., Department of Psychology, Mail Stop 948, University of Toledo, 2801 West Bancroft Street, Toledo, OH 43606; matthew.tull@utoledo.edu; 419-530-4392 (voice).

2012; McMurran, 2012). In an attempt to better identify the subset of alcohol users at greatest risk for these negative outcomes, a growing body of research has begun to examine the role of alcohol use motives in risk for alcohol use-related negative outcomes. Cooper's (1994) dimensional approach posits a four-factor model of motives for alcohol use: positive, internal motives (enhancement); positive, external motives (social); negative, internal motives (coping); and negative, external motives (conformity).

To date, research examining the relation between motives for alcohol use and negative outcomes has primarily focused on coping motives. Coping motives have been found to be associated with poorer self-care, greater engagement in risk-taking in general (e.g., drinking and driving), and more academic/occupational problems (e.g., Merrill & Read, 2010). However, additional research examining the relation between other alcohol use motives and alcohol-related negative outcomes is needed. In particular, given evidence that alcohol misuse is associated with increased risk for risky sexual behavior (RSB; Brown & Vanable, 2007; Cooper, 2002; Stoner, George, Peters, & Norris, 2007; Kaly, Heesacker, & Frost, 2002; Testa, Livingston, & Hoffman, 2007), research is needed to examine the relation of specific alcohol use motives to RSB.

Broadly speaking, RSB refers to any sexual behaviors that increase the risk for unintended pregnancy, sexually transmitted infection (STI), or other adverse outcomes (Caldeira et al., 2009), including having multiple sexual partners and having sex without a condom or under the influence of alcohol and/or drugs. Past research has identified a number of risk factors for RSB, including age (inversely related; Lopez, Krueger, & Walters, 2010; Xia et al., 2006), male gender (Browne, Clubb, Wang, & Wagner, 2009; Hittner & Kryzanowski, 2010), and the presence of certain psychiatric disorders, especially borderline personality disorder (BPD; Chen, Brown, Lo, & Linehan, 2007; Tull, Gratz, & Weiss, 2011) and substance use disorders (Browne et al., 2009; Lejuez, Simmons, Aclin, Daughters, & Dvir, 2004). However, no studies to date have examined whether specific alcohol use motives are associated with RSB.

Relative to other alcohol use motives, conformity motives, defined as using alcohol to avoid aversive social consequences (i.e. peer rejection), may be particularly relevant to RSB. Similar to coping motives for alcohol use, conformity motives have been found to relate positively to numerous negative alcohol-related outcomes, including poor self-care, diminished self-perception, and impaired control (Merrill & Read, 2010). With regard to their relation to RSB in particular, conformity motives may operate as a proxy risk factor (see Kraemer, Stice, Kazdin, Offord, & Kupfer, 2001) for RSB, reflecting the tendency to engage in other interpersonally-oriented risk behaviors in order to avoid rejection, interpersonal conflict, or social ostracism. For example, people who drink to avoid potential exclusion by their peers may also have a tendency to engage in other maladaptive behaviors (e.g., RSB) to reduce the likelihood of rejection. In support of this idea, Stewart and colleagues (2006) found that conformity motives explained the relation between fear of negative evaluation from others and alcohol-related problems. Thus, individuals who drink alcohol with the aim of avoiding negative social consequences may also be more likely to engage in RSB.

The current study sought to extend previous research by examining the relations between motives for alcohol use and RSB among a high-risk sample of alcohol dependent patients in residential treatment. It was hypothesized that conformity motives would be associated with RSB at a zero-order level, as well as above and beyond other motives for alcohol use and relevant covariates.

Method

Participants

A sample of 94 adults ($M_{age} = 35.09$, $SD = 10.34$; 51.1% male) with an AUD (i.e., alcohol dependence or abuse) were derived from a larger sample ($N = 226$) of patients in a residential substance use disorder (SUD) treatment program. The majority of participants identified as White (66.0%), with the remainder identifying as Black/African-American (31.9%), Native American (1.1%), and Asian American (1.1%). Almost half of the participants reported an annual income under \$10,000 (49.5%), and 57.4% had no higher than a high school education.

Measures

Clinical Interviews.

The SUD module of the research version of the Structured Clinical Interview for DSMIV Axis I Disorders (SCID-I/NP; First, Spitzer, Gibbon, & Williams, 2002) was used to assess for the presence of current and lifetime SUD. The SCID has demonstrated excellent inter-rater reliability (Lobbstaël, Leurgans, & Arntz, 2011) and good validity in SUD populations (Kranzler, Kadden, Babor, & Tennen, 1996).

The MINI-International Neuropsychiatric Interview (MINI; Sheehan et al., 1998) was used to assess for the presence of Axis I disorders, including psychotic disorders. The MINI has demonstrated high specificity for each evaluated disorder, as well as excellent inter-rater reliability (Sheehan et al., 1998). Finally, the BPD module of the Diagnostic Interview for DSM-IV Personality Disorders (DIPD-IV; Zanarini, Frankenburg, Sickel, & Yong, 1996) was used to assess for the presence of current (i.e., past 2 years) BPD. Past research indicates that the DIPD-IV demonstrates good inter-rater and test-retest reliability for the assessment of BPD (Zanarini et al., 2000), with an inter-rater kappa coefficient of .68 and a test-retest kappa coefficient of .69.

All interviews were conducted by bachelors- or masters-level clinical assessors trained to reliability with the principal investigator (MTT) and/or co-investigator (KLG). All interviews were reviewed by the principal investigator, with diagnoses confirmed in consensus meetings.

Self-report measures.

The Drinking Motives Questionnaire (DMQ-R; Cooper, 1994) is a 20 item self-report measure that evaluates four empirically distinct motives for alcohol use (i.e., coping, social, conformity, and enhancement). Individuals rate each item on a 5-point Likert-type scale (1 = Almost Never/Never; 5 = Almost Always/Always). The DMQ-R has been found to have

good construct validity and high internal consistency (Cooper, 1994). Internal consistency in the current sample was good for all subscales: coping ($\alpha = .86$), social ($\alpha = .86$), conformity ($\alpha = .81$), and enhancement ($\alpha = .83$).

The Texas Christian University HIV/AIDS Risk Assessment (TCU; Camacho, Bartholomew, Joe, & Simpson, 1997) is a self-report measure of HIV risk behaviors in the domains of drug use (e.g., sharing “works”) and sexual behavior (e.g., unprotected intercourse). A composite variable comprised of five items from the TCU was utilized to evaluate RSB more broadly than single item analyses would allow (for a similar approach, see Lejuez, Bornovalova, Daughters, & Curtin, 2005; Weiss, Tull, Borne, & Gratz, 2013). Participants were asked to report the number of times in the month prior to treatment they engaged in unprotected sex with: a) someone who was not their spouse or primary partner, b) someone who shoots drugs with needles, c) someone who smokes crack/cocaine, and d) while they or their partner were “high” on drugs or alcohol.

Procedure

All procedures were reviewed and approved by the relevant Institutional Review Boards. Data were collected as part of a larger study examining risky behaviors among SUD patients. To be eligible for inclusion in the larger study, participants were required to: 1) be dependent on cocaine and/or alcohol; 2) have a Mini-Mental Status Exam (Folstein, Folstein, & McHugh, 1975) score of ≥ 24 ; and 3) have no current psychotic disorder. Eligible participants were recruited for this study no sooner than 72 hours after entry into the facility (to limit the possible interference of withdrawal symptoms on study engagement). Those who met inclusion criteria were provided with information about study procedures and associated risks, following which written informed consent was obtained. Participants were then administered the diagnostic interviews and a questionnaire packet. Participants were reimbursed \$25 for this assessment session.

Results

Data Analytic Strategy

Relevant covariates were selected for analysis a priori on the basis of their theoretical or empirical relations to the outcome variable, RSB (see Sauer, Brookhart, Roy & VanderWeele, 2013; Tabachnick & Fidell, 1996; Steiner, Wroblewski, & Cook, 2009). Specifically, age, biological sex, number of current substance use disorder diagnoses, and BPD were included as covariates in primary analyses.

A hierarchical regression analysis was used to examine the unique relation between conformity motives and RSB, above and beyond other motives for alcohol use and relevant covariates. Covariates were entered in Step 1 of the analysis, coping, social, and enhancement motives for alcohol use were entered in Step 2, and conformity motives were entered in Step 3. Effect size was indexed via squared semi-partial correlations (sr^2).

Primary Analyses

Table 1 provides descriptive data for each of the variables of interest, as well as their intercorrelations. As predicted, conformity motives were the only set of alcohol use motives significantly associated with RSB at a zero-order level ($r = .22, p < .05$). Table 2 provides the results of the regression analysis. The covariates entered in the first step of the model did not significantly predict variance in RSB. Alcohol use motives entered in the second step (i.e., coping, social, and enhancement motives) also did not significantly predict variance in RSB. Consistent with hypotheses, the inclusion of conformity motives significantly improved the model, accounting for an additional 5% of the variance in RSB. Moreover, in the final model, conformity motives emerged as the only significant predictor of RSB ($\beta = .24, t = 2.09, p = .03$).

Discussion

The current study represents one of the first examinations of the relation between conformity motives for alcohol use and RSB among AUD patients in residential substance abuse treatment. Conceptually, individuals who utilize alcohol to avoid social rejection or other negative interpersonal consequences may also be more likely to engage in other risky behaviors that involve peer/social pressure to conform, such as RSB. The findings from the current study support this conceptualization, demonstrating that conformity motives for alcohol use are uniquely associated with engagement in RSB above and beyond other risk factors for RSB and alcohol use motives.

These results are consistent with past research demonstrating that peer influences can affect RSB (Lewis, Patrick, Mittmann, & Kaysen, 2014), as well as evidence that ostracism, rejection, and rejection sensitivity are associated with greater risk-taking behaviors, including RSB (Buelow & Wirth, in press; Edwards & Barber, 2010; Kopetz et al., 2014). The results of this study are also consistent with those of MacPherson and colleagues (2012), who found that alcohol use conformity motives were significantly associated with negative reinforcement-based risk-taking as assessed through a behavioral task. Together, these findings suggest that the systematic assessment of conformity motives may aid in the identification of individuals at heightened risk for engagement in risky behaviors (particularly in the context of rejection or ostracism concerns).

Several limitations of this study warrant mention. First, it is important to note that the proxy risk factor model examined in this study does not assume a particular temporal order or causal relation between the variables; thus, we are not suggesting that conformity motives preclude RSB or increase the risk for these behaviors in the context of alcohol use. Our results simply highlight a positive relation between these variables. Future research utilizing experimental or prospective designs would be needed to examine the extent to which conformity motives for alcohol increase the risk for RSB directly. Research should also examine the correspondence across alcohol use motives and motives for RSB. Second, this study relied exclusively on self-report measures of RSB and alcohol use motives, responses to which may be limited by the willingness and/or ability of participants to report on these phenomena. For example, the perceived negative consequences of reporting RSB may have resulted in underreporting of this behavior. Likewise, given our use of a SUD sample, it is

possible that some participants may have engaged in RSB in the context of substance use, thereby limiting their ability to provide an accurate report of past RSB. However, it warrants mention that there is evidence that self-report methods may result in more valid reports of RSB than other assessment methods (e.g., interviews; Fenton, Johnson, McManus, & Erens, 2001). Nonetheless, future studies would benefit from the inclusion of other RSB assessments, including timeline followback procedures (Weinhardt, Carey, & Carey, 2000). Finally, the characteristics of the current sample may limit the generalizability of the results to nonclinical populations or non-SUD clinical populations. Future research examining the relation between conformity motives and RSB among individuals with more normative alcohol use and/or those with alcohol-related problems not seeking treatment for AUD would help speak to the robustness of this relation. In particular, research examining this relation among college student and other young adult community samples would be useful.

Despite these limitations, the current study represents an initial step in determining clinically-relevant correlates of conformity motives for alcohol use. A psychosocial framework of alcohol use that includes evaluation of individual motives may inform treatment. The utilization of interventions targeting the reduction of specific alcohol use motives or focused on improving assertiveness more generally may enhance specific treatment outcomes for individuals who may be particularly vulnerable to exposure to negative peer influences posttreatment. In particular, given both the demonstrated effectiveness of alcohol refusal skills in reducing alcohol consumption (Witkiewitz, Donovan, & Hartzler, 2012) and evidence that sexual non-assertiveness is associated with RSB (Stoner et al., 2008), interventions that enhance one's self-efficacy to refuse to participate in risky behavior may decrease conformity-motivated alcohol use and RSB.

This study was funded in part by R21 DA030587 of the National Institute on Drug Abuse of the National Institutes of Health awarded to the second author.

References

- Berglund M, & Ojehagen A (1998). The influence of alcohol drinking and alcohol use disorders on psychiatric disorders and suicidal behavior. *Alcoholism: Clinical and Experimental Research*, 22, 333S–345S.
- Brown JL, & Vanable PA (2007). Alcohol use, partner type, and risky sexual behavior among college students: Findings from an event-level study. *Addictive behaviors*, 32, 2940–2952. [PubMed: 17611038]
- Browne D, Clubb P, Wang Y, & Wagner F (2009). Drug use and high-risk sexual behaviors among African American men who have sex with men and men who have sex with women. *American Journal of Public Health*, 99, 1062–1066. [PubMed: 19372526]
- Buelow MT, & Wirth JH (in press). Decisions in the face of known risks: Ostracism increases risky decision-making. *Journal of Experimental Social Psychology*.
- Caldeira K, Arria A, Zarate E, Vincent K, Wish E, & O'Grady K (2009). Prospective associations between alcohol and drug consumption and risky sex among female college students. *Journal of Alcohol and Drug Education*, 53, 71–92.
- Camacho LM, Bartholomew NG, Joe GW, & Simpson DD (1997). Maintenance of HIV risk reduction among injection opioid users: A 12-month posttreatment follow-up. *Drug and Alcohol Dependence*, 47, 11–18. [PubMed: 9279493]
- Chen EY, Brown MZ, Lo TT, & Linehan MM (2007). Sexually transmitted disease rates and high-risk sexual behaviors in borderline personality disorder versus borderline personality disorder with

- substance use disorder. *The Journal of Nervous and Mental Disease*, 195, 125–129. [PubMed: 17299299]
- Cooper ML (1994). Motivations for alcohol use among adolescents: Development and validation of a four-factor model. *Psychological Assessment*, 6, 117–128.
- Cooper ML (2002). Alcohol use and risky sexual behavior among college students and youth: Evaluating the evidence. *Journal of Studies on Alcohol, Supplement 14*, 101–117.
- Edwards GL, & Barber BL (2010). The relationship between rejection sensitivity and compliant condom use. *Archives of Sexual Behavior*, 39, 1381–1388. [PubMed: 19760145]
- Fenton KA, Johnson AM, McManus S, & Erens B (2001). Measuring sexual behavior: Methodological challenges in survey research. *Sexually Transmitted Infections*, 77, 84–92. [PubMed: 11287683]
- First M, Spitzer R, Gibbon M, & Williams J (2002). Structured clinical interview for DSM-IV-TR Axis I, Research Version, Non-patient Edition (SCID-I/NP). Biometrics Research, New York State Psychiatric Institute.
- Folstein M, Folstein S, & McHugh P (1975). Mini-mental state: A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research*, 12, 189–198. [PubMed: 1202204]
- Grant BF, Stinson FS, Dawson DA, Chou SP, Dufour MC, Compton W...Kaplan K (2004). Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: Results from the National Epidemiological Survey on Alcohol and Related Conditions. *Archives of General Psychiatry*, 61, 807–816. [PubMed: 15289279]
- Hittner J, & Kryzanowski J (2010). Residential status moderates the association between gender and risky sexual behavior. *Journal of Health Psychology*, 15, 634–640. [PubMed: 20460420]
- Kaly P, Heesacker M, & Frost H (2002). Collegiate alcohol use and high-risk sexual behavior: A literature review. *Journal of College Student Development*, 43, 838–850.
- Kopetz C, Pickover A, Magidson JF, Richards JM, Iwamoto D, & Lejuez CW (2014). Gender and social rejection as risk factors for engaging in risky sexual behavior among crack/cocaine users. *Prevention Science*, 15, 376–384. [PubMed: 23761179]
- Kraemer HC, Stice E, Kazdin A, Offord D, & Kupfer D (2001). How do risk factors work together? Mediators, moderators, and independent, overlapping, and proxy risk factors. *American Journal of Psychiatry*, 158, 848–856. [PubMed: 11384888]
- Kranzler H, Kadden R, Babor T, & Tennen H (1996). Validity of the SCID in substance abuse patients. *Addiction*, 91, 859–868. [PubMed: 8696248]
- Lejuez CW, Bornovalova MA, Daughters SB, & Curtin JJ (2005). Differences in impulsivity and sexual risk behavior among inner-city crack/cocaine users and heroin users. *Drug and Alcohol Dependence*, 77, 169–175. [PubMed: 15664718]
- Lejuez CW, Simmons BL, Aklon WM, Daughters SB, & Dvir S (2004). Risk-taking propensity and risky sexual behavior of individuals in residential substance use treatment. *Addictive Behaviors*, 29, 1643–1647. [PubMed: 15451132]
- Lewis M, Patrick M, Mittmann A, & Kaysen D (2014). Sex on the beach: The influence of social norms and trip companion on spring break sexual behavior. *Prevention Science*, 15, 408–418. [PubMed: 24464322]
- Lim SS, Vos T, Flaxman AD, Danaei G, Shibuya K, Adair-Rohani H...et al. (2012). A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: A systematic analysis for the Global Burden of Disease Study. *Lancet*, 380, 2224–2260. [PubMed: 23245609]
- Lobbstaerl J, Leurgans M, & Arntz A(2011). Inter-rater reliability of the Structured Clinical Interview for DSM-IV Axis I disorders (SCID-I) and Axis II disorders (SCID-II). *Clinical Psychology and Psychotherapy*, 18, 75–79. [PubMed: 20309842]
- Lopez W, Krueger P, & Walters S (2010). High-risk drug use and sexual behaviors among out-of-treatment drug users: An aging and life course perspective. *Addictive Behaviors*, 35, 432–437. [PubMed: 20071098]
- MacPherson L, Calvin NT, Richards JM, Guller L, Mayes LC, Crowley MJ, ... & Lejuez CW (2012). Development and preliminary validation of a behavioral task of negative reinforcement underlying

risk-taking and its relation to problem alcohol Use in college freshmen. *Alcoholism: Clinical and Experimental Research*, 36, 950–957.

- Marcotte T, Bekman N, Meyer R, & Brown S (2012). High-risk driving behaviors among adolescent binge drinkers. *The American Journal of Drug and Alcohol Abuse*, 38, 322–327. [PubMed: 22324748]
- McMurrin M (2012). Individual-level interventions for alcohol-related violence: A rapid evidence assessment. *Criminal Behaviour and Mental Health*, 22, 14–28. [PubMed: 21823184]
- Merrill J, Wardell J, & Read J (2014). Drinking motives in the prospective prediction of unique alcohol-related consequences in college students. *Journal of Studies on Alcohol and Drugs*, 75, 93–102. [PubMed: 24411801]
- Salloum IM, & Thase ME (2000). Impact of substance abuse on the course and treatment of bipolar disorder. *Bipolar Disorders*, 2, 269–280. [PubMed: 11249805]
- Sauer BC, Brookhart MA, Roy J, & VanderWeele T (2013). A review of covariate selection for non-experimental comparative effectiveness research. *Pharmacoepidemiology and Drug Safety*, 22, 1139–1145. [PubMed: 24006330]
- Sheehan DV, Lecrubier Y, Sheehan KH, Amorim P, Janavs J, Weiller E, Dunbar GC (1998). The Mini-International Neuropsychiatric Interview (M.I.N.I.): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *Journal of Clinical Psychiatry*, 59, 34–57. Retrieved from: <https://www.psychiatrist.com/> [PubMed: 9559758]
- Steiner P, Wroblewski A, & Cook T (2009). Chapter 5. Randomized experiments and quasi-experimental designs in educational research In Ryan K & Cousins JB (Eds.), *The SAGE International Handbook of Educational Evaluation* (pp, 75–97). Thousand Oaks, CA: SAGE Publications, Inc.
- Stewart SH, Morris E, Mellings T, & Komar J (2006). Relations of social anxiety variables to drinking motives, drinking quantity and frequency, and alcohol-related problems in undergraduates. *Journal of Mental Health*, 15, 671–682.
- Stoner S, George W, Peters L, & Norris J (2007). Liquid courage: Alcohol fosters risky sexual decision-making in individuals with sexual fears. *AIDS and Behavior*, 11, 227–237. [PubMed: 16802196]
- Stoner S, Norris J, George W, Morrison D, Zawacki T, Davis K, & Hessler D (2008). Women's condom use assertiveness and sexual risk-taking: Effects of alcohol intoxication and adult victimization. *Addictive Behaviors*, 33, 1167–1176. [PubMed: 18556139]
- Substance Abuse and Mental Health Services Administration (2013). National Survey on Drug Use and Health (NSDUH). Table 5.8A—Substance Dependence or Abuse in the Past Year among Persons Aged 18 or Older, by Demographic Characteristics: Numbers in Thousands, 2012 and 2013. Available at: <http://www.samhsa.gov/data/sites/default/files/NSDUH-DefTabsPDFWHTML2013/Web/HTML/NSDUH-DefTabsSect5peTabs1to56-2013.htm#tab5.8a>
- Swartz MS, Swanson JW, Hiday VA, Borum R, Wagner R, & Burns BJ (1998). Violence and severe mental illness: The effects of substance abuse and nonadherence to medication. *American Journal of Psychiatry*, 155, 226–231. [PubMed: 9464202]
- Tabachnick BG, & Fidell LS (1996). *Using multivariate statistics (3rd edition)* New York, NY: Harper Collins.
- Testa M, Livingston J, & Hoffman J (2007). Does sexual victimization predict subsequent alcohol consumption? A prospective study among a community sample of women. *Addictive Behaviors*, 32, 2926–2939. [PubMed: 17597304]
- Tull MT, Gratz KL, & Weiss NH (2011). Exploring associations between borderline personality disorder, crack/cocaine dependence, gender, and risky sexual behavior among substance-dependent patients. *Personality Disorders: Theory, Research, and Treatment*, 2, 209–219.
- Weinhardt LS, Carey KB, Carey MP (2000). HIV risk sensitization following a detailed sexual behavior interview: A preliminary investigation. *Journal of Behavioral Medicine*, 23, 393–398. [PubMed: 10984867]
- Weiss NH, Tull MT, Borne ME, & Gratz KL (2013). Posttraumatic stress disorder symptom severity and HIV-risk behaviors among substance-dependent inpatients. *AIDS Care*, 25, 1219–1226. [PubMed: 23356590]

- Witkiewitz K, Donovan D, & Hartzler B (2012). Drink refusal training as part of a combined behavioral intervention: Effectiveness and mechanisms of change. *Journal of Consulting and Clinical Psychology*, 80, 440–449. [PubMed: 22289131]
- Xia Q, Osmond D, Tholandi M, Pollack L, Zhou , Ruiz J, & Catania J (2006). HIV prevalence and sexual risk behaviors among men ho have sex ith men: Results from a stateide population-based survey in California. *Journal of Acquired Immune Deficiency Syndromes*, 41, 238–245. [PubMed: 16394858]
- Zanarini M, Frankenburg F, Sickel A, &Yong L (1996). *The Diagnostic Intervie for DSM–IV Personality Disorder*. Belmont, MA: McLean Hospital.
- Zanarini MC, Skodol AE, Bender D, Dolan R, Sanislo C, Schaeffer E, et al. (2000). The Collaborative Longitudinal Personality Disorders Study: Reliability of Axis I and II diagnoses. *Journal of Personality Disorders*, 14, 291–329. [PubMed: 11213787]

Table 1

Correlations among Risky Sexual Behavior and Motives for Alcohol Use

	Mean (SD)	Range	1	2	3	4	5
1. TCU RSB	13.01 (17.71)	1-75	-	.22*	.07	.10	.12
2. DMQ Conformity	10.08 (4.84)	5-25	-	.23*	.26**	.43**	
3. DMQ Cope	17.42 (5.45)	5-25	-	-	-	.60**	.48**
4. DMQ Enhancement	18.04 (4.94)	5-25	-	-	-	-	.63**
5. DMQ Social	18.12 (5.03)	5-25	-	-	-	-	-

Note. $n=94$.* $p < .05$;** $p < .01$.

TCU = Texas Christian University HIV/AIDS Risk Assessment (Camacho et al., 1997). RSB = Risky Sexual Behavior. DMQ = Drinking Motives Questionnaire (Cooper, 1994).

Table 2

Hierarchical Regression Analysis Examining the Unique Contribution of Conformity Motives to Risky Sexual Behavior Above and Beyond Covariates and Other Alcohol Use Motives.

	R²	t	β	sr²
<i>Step 1</i>	.04			
Age		-1.63	-.17	.02
Gender		0.11	.01	.00
BPD		-0.23	-.02	.00
Current Number of SUDs		1.05	.11	.01
<i>Step 2</i>	.05			
DMQ-Cope		-0.05	-.00	.00
DMQ-Enhancement		0.03	.00	.00
DMQ-Social		0.74	.10	.00
<i>Step 3</i>	.10 [*]			
DMQ-Conformity		2.09	.24	.04 [*]

Note. $n = 94$. β = standardized beta eight. sr^2 = Squared semipartial correlation.

^{*} $p < .05$;

SUD = Substance Use Disorder. BPD = Borderline Personality Disorder.