Digital Commons @ LMU and LLS

**Digital Commons@
Loyola Marymount University
and Loyola Law School**

Heads Up!

Psychology

5-1-2007

Reasons for Drinking in the College Student Context: The Differential Role and Risk of the Social Motivator

Joseph W. LaBrie
Loyola Marymount University, jlabrie@lmu.edu

Justin F. Hummer
Loyola Marymount University, jhummer@usc.edu

Eric R. Pedersen
Loyola Marymount University

This article contains two (2) tables

Running Head: SOCIAL REASONS FOR DRINKING

Reasons for Drinking in the College Student Context:

The Differential Role and Risk of the Social Motivator

Authors:

Joseph W. LaBrie, Ph.D.; Loyola Marymount University; Assistant Professor,

Department of Psychology; 310-338-5238; jlabrie@lmu.edu; 1 LMU Drive, Los Angeles,

CA 90045.

Justin F. Hummer, B.A.; Loyola Marymount University; Heads UP! Research Associate;

310-338-7770; jhummer@lmu.edu; 1 LMU Drive, Los Angeles, CA 90045.

Eric R. Pedersen, M.A.; Loyola Marymount University; Heads UP! Project Coordinator;

310-338-7770; epedersen@lmu.edu; 1 LMU Drive, Los Angeles, CA 90045.

Correspondence concerning this article should be addressed to Joseph LaBrie, Department of Psychology, Loyola Marymount University, One LMU Drive, Los Angeles, CA 90045. Telephone: (310) 338-5238. Fax: (310) 338-7726. Electronic mail should be sent to jlabrie@lmu.edu.

ABSTRACT. Objective: The present study examines the relationship between reasons for drinking, alcohol consumption and alcohol-related consequences in two college-aged samples. Personal motivators such as mood enhancement and coping (tension reduction) have consistently been shown to predict problematic use, but because of the salient nature of social drinking in college, we hypothesized that social reasons for drinking would be most frequently endorsed and, in turn, predict negative consequences. **Method:** Two distinct samples—119 co-ed adjudicated students sanctioned by the university for violating campus alcohol policy and 106 co-ed volunteer students—completed measures assessing alcohol consumption, reasons for drinking, and consequences. Differential effects among genders were examined. **Results:** Social camaraderie (SC) was the most frequently endorsed reason for drinking. Regression analyses controlling for previous drinking revealed that social reasons for drinking predict alcohol-related problems among female students in both samples. Additionally, social camaraderie was significantly correlated with every drinking measure and problem measure at 1 month, for females in both the adjudicated and volunteer groups. Total drinks, drinking days, and heavy episodic drinking events correlated with SC for men in the adjudicated sample. **Conclusions:** For women, these results suggest a relationship between social reasons for drinking and alcohol-related consequences, which previous research has not identified. More research is needed to explore women's reasons for drinking, accompanying problems, and the underlying psychosocial traits associated with these reasons. (*J. Stud. Alcohol Drugs* **68:** 000-000, 2007)

EXCESSIVE DRINKING IN THE COLLEGE context is associated with damaged property, poor class attendance, hangovers, trouble with authorities, injuries, and fatalities (Hingson et al., 2005; Wechsler et al., 1994, 2000; Wechsler and Isaac, 1992). Additionally, the National Institute on Alcohol Abuse and Alcoholism (2002) calls for targeted interventions with college students to reduce risky levels of consumption. Before designing interventions with students, it is important to identify the reasons behind these heavy levels of consumption. Although peer influence, alcohol accessibility, and pressure to be accepted all affect students' alcohol use (Hanson, 1974), early research with reasons for drinking, or drinking motives, found two main reasons why college students drink: social purposes and emotional escape or relief (Brennan et al., 1986). However, research has been inconsistent regarding the most salient reasons for student drinking, and their consequential effects on drinking outcomes.

Cooper and colleagues (1992) developed a measure for drinking motives that identified three factors: mood enhancement, tension reduction (or coping), and social motives. They posited that each motive is associated with unique characteristics of drinking behavior and related outcomes. Enhancement and coping motives were predictive of excessive consumption levels and alcohol-related consequences, whereas social reasons failed to predict excessive drinking levels or alcohol problems (Cooper, 1994; Cooper et al., 1992). Cronin (1997) developed the Reasons for Drinking Scale that included three subscales: social camaraderie, mood enhancement, and tension reduction. In a college student sample, social camaraderie motives predicted drinking rates but, like Cooper, did not predict alcohol-related problems (Cronin, 1997).

Personal motivations, such as the enhancement of internal affective states, have typically been found to predict drinking rates and alcohol-related problems (Billingham et al., 1993; Cronin, 1997; McCarty and Kaye, 1984; Wood et al., 1992). For example, mood enhancement, an internal motive based on positive reinforcement seeking to increase positive internal states, is

associated with patterns of frequent and heavy drinking (Colder and O'Conner, 2002; Stewart and Chambers, 2000). Tension reduction or coping is also an internal motive for drinking, but it is based on negative reinforcement as its aim is to decrease negative internal states. Coping motives predict heavy drinking, social and occupational problems, and greater tolerance and withdrawal symptoms (Cooper et al., 1992).

Social motivators for drinking, or social camaraderie, are external motives based on positive reinforcement (Colder and O'Conner, 2002). Social factors have been shown to play a strong role in college drinking (Simons et al., 2000; Stewart et al., 1996; Wood et al., 2001), and drinking in college is done primarily in social contexts (Harford and Grant, 1987; O'Hare, 1990). Further, the social context of college environments has been associated with heavy alcohol use (Carey, 1993; 1995), creating a culture where such use is relatively normative (Gotham et al., 1997; Wechsler et al., 2000). A study by Carey and Correia (1997) found that both positive reinforcement and negative reinforcement motives were associated with resultant alcohol-related problems. However, when they controlled for consumption levels, only negative reinforcement variables predicted negative consequences.

Similarly, several other studies among college students have found that social motivations predict frequent but nonproblematic drinking (Goodwin, 1990; Haden and Edmundson, 1991; Klein, 1992; Wood et al., 1992). Following an extensive review of the drinking motives literature, Baer (2002) found that stress/anxiety-based drinking is associated with increased drinking rates and increased negative consequences. He concluded that drinking motives associated with management of negative affect are associated with greater problems than social motives. Ham and Hope (2003) reached a similar conclusion in their review when they noted that although all motives have been associated with higher levels of drinking, social motives were the only motives that have been associated with nonproblematic drinking.

This failure to find a direct link between socially motivated drinking and subsequent problems seems counterintuitive given the strong social role alcohol plays within the college context. However, much of the aforementioned research neglected to partition out gender differences when conducting predictive analyses. Recently, rates of heavy episodic drinking among undergraduate women have increased and approach those of college men (O'Malley and Johnston, 2002; Wechsler et al., 2002; Young et al., 2005). Further, men and women may use and abuse alcohol for different reasons, and with different results (Gleason, 1994). A difference between young men and women's reasons for drinking may be that young women are more likely to drink to fulfill a desire for intimate relationships (Vince-Whitman and Cretella, 1999). The strong perceived relationship between alcohol and intimacy in women may place them more at risk for negative consequences that typically do not affect men. The National Institute on Alcohol Abuse and Alcoholism estimates that each year 70,000 cases of sexual assault or date rape and 400,000 unprotected sex events occur on American college campuses and predominately involve drinking. The potential differences in how male and female students may use alcohol, as well as differential consequences warrants closer examination.

Although much research focuses on personal motivators as the pre-cursor to problematic drinking among all students, the relationship of social reasons and drinking-related consequences among genders needs further exploration. Thus, the present study examines the relationship between reasons for drinking, specifically targeting social reasons; alcohol consumption; and alcohol-related consequences in two college-aged samples, adjudicated students, and volunteer participants. Adjudicated students are disproportionately heavy drinkers who are at increased risk for alcohol related consequences (Caldwell, 2002; Larimer and Cronce, 2002) and, therefore, are an important inclusion in this study. Including both a volunteer sample and an adjudicated sample with both men and women will help generalize results across a wider array of college student drinkers. We hypothesize that social reasons for drinking will be more frequently

endorsed than enhancement or coping reasons. An emphasis is placed on the social reasons for drinking, as drinking in college is done particularly in the social context with peer influence to drink. In this regard, we hypothesize that social reasons will predict drinking more strongly than enhancement or coping reasons. Contrary to previous research and consistent with notable risky drinking behavior and the salient nature of sociability among college students, we further hypothesize that social motives will predict problems associated with drinking over and above actual drinking behavior. Finally, to investigate possible variations in reasons for drinking between males and females, the differential effects among genders will be examined as well.

Method

Participants

The current study used two samples of students drinkers assessed over the course of the 2004-2005 academic year. Sample one contained 106 student drinkers (35 males and 71 females) recruited through the University's psychology subject pool to participate in an alcohol survey for class credit. Initial recruitment consisted of 130 student volunteers, but to examine drinking motives among student drinkers, the data from abstainers was not used in analyses. Volunteers averaged (SD) 19.14 (2.40) years of age and varied in ethnicity with 59% Caucasian, 15% Hispanic, 15% Asian, 2% African American, and 9% classified as "other." The class standings for this group were 75% freshmen, 17% sophomores, 4% juniors, and 4% seniors. The second sample consisted of 119 adjudicated students (71 males and 48 females) sanctioned by the university for violating campus alcohol policy. Violations ranged in severity from underage intoxication to dangerous and destructive activity while intoxicated. Adjudicated students were referred to the study as a deferral of judicial sanction, and although they were given an alternate option, nearly all sanctioned students chose to participate in the study. The students were predominantly Caucasian (82%) and averaged 18.55 (2.43) years of age, with 50% freshmen, 40% sophomores, 8% juniors, and 1% seniors.

Measures

The university institutional review board approved the studies, and all participants gave informed consent regardless of volunteer or adjudicated status. Participants completed an assessment questionnaire that included demographic information, followed by measures of consequences, reasons for drinking, and consumption. The Rutgers Alcohol Problem Index (RAPI; White and Labouvie, 1989) assessed alcohol-related consequences during the prior month. The Reason for Drinking Scale (RFD; Cronin, 1997) assessed three separate subscales of individual reasons for drinking: mood enhancement (ME; 8 items), social camaraderie (SC; 8 items), and tension reduction (TR; 9 items). Participants rated these reasons for drinking on a 3-point scale ("not a reason," "a minor reason," and "a major reason") and each subscale's score was examined separately. Each subscale displayed adequate reliability with α levels of ME (α = .828), SC (α = .726), and TR (α = .799), and ME (α = .810), SC (α = .778), and TR (α = .854) for the volunteer and adjudicated samples respectively.

In the group participants also completed a Timeline Followback (TLFB; Sobell and Sobell, 1992) individually indicating on a calendar all the days they drank and how much they drank in the past month. Although usually performed in one-on-one interviews, a group-administered TLFB yields equivalent data to individual interview TLFB (LaBrie et al., 2005; Pedersen and LaBrie, 2006). Variables assessed included total drinks, drinking days, average drinks per event, and heavy episodic drinking events in the past month.

Results

Means and standard deviations for drinking, motives and alcohol-related problems variables and for men and women in both samples are contained in Table 1.

[COMP: Table 1 about here]

Endorsement of social reasons

In both samples SC was most the most endorsed reason for drinking. Bivariate comparisons among SC and the other two factors were all significantly different at $p < .001$ (volunteers: SC vs ME, $t = 8.63$, 104 df; SC vs TR, $t = 5.67$, 105 df; adjudicated students: SC vs ME, $t = 6.42$, 117 df; SC vs TR, $t = 11.02$, 117 df). When divided by males and females, SC was still the most endorsed reason for drinking in both samples for males and females; with SC motives significantly more endorsed than either ME or TR motives (see Table 1).

Association of motives and drinking variables

Correlations for the reasons for drinking factors with drinking variables among the samples and by gender are displayed in Table 2. SC significantly correlated with every drinking variable assessed (total drinks [drinks/month], drinking days, average drinks, and heavy episodic drinking events) for women in both samples. Total drinks, drinking days, and heavy episodic drinking events correlated with SC for men in the adjudicated sample. In both samples, neither ME nor TR significantly correlated with any drinking variable for either men or women.

[COMP: Table 2 about here]

Association of motives and consequences

Correlations for the reasons for drinking factors with composite RAPI scores among sample and by gender are displayed in Table 2. All three reasons for drinking correlated with problems for both men and women in the volunteer sample. A Fisher's *R* to *Z* transformation revealed that for men, no differences in correlations existed between SC and ME ($z = 0.50$, $p = .31$) and between SC and TR ($z = 0.41$, $p = .34$). For women in the volunteer sample, however, differences in correlations between SC and ME approached significance ($z = 1.33$, $p = .09$) and were significant between SC and TR ($z = 1.81$, $p < .05$). In the adjudicated sample, both SC and TR were significantly correlated with problems, and although the correlation between SC and problems was larger than the correlation between TR and problems, this difference was not

significant ($z = 1.03$, $p = .15$). No reason for drinking correlated with problems for men in the adjudicated sample.

Regression analyses predicting consequences from motives

To test the hypothesis that social motives predict alcohol problems in college students, we conducted regression equations predicting problems from reasons for drinking. We controlled for alcohol consumption levels by entering drinking in the past month (total drinks consumed) in Step 1 of a hierarchical regression model. We entered all three reasons for drinking subscales in Step 2. In the volunteer sample, after controlling for previous drinking on Step 1 ($R^2 = .20$), SC was the only significant predictor of problems for the composite RAPI ($\beta = .35$, $t = 3.43$, $p < .01$; change in $R^2 = .20$, $p < .001$). In the adjudicated sample, after controlling for previous drinking, ($R^2 = .15$), none of the reasons for drinking significantly predicted problems (change in $R^2 = .07$, $p < .05$).

We further analyzed the data, splitting the output by gender using the same analysis model. For women in both samples, after controlling for drinking in the past month ($R^2 = .37$ for volunteers; $R^2 = .25$ for adjudicated women), SC significantly predicted RAPI problems ($\beta = .31$, $t = 3.10$, $p < .01$, change in $R^2 = .22$, $p < .001$ for volunteers; $\beta = .42$, $t = 2.12$, $p < .05$, change in $R^2 = .13$, $p < .05$ for adjudicated women). No reasons for drinking significantly predicted problems for men.

Discussion

The current study reaffirms the influence of social reasons for drinking on alcohol consumption in college students. It further provides evidence for a direct relationship between social reasons for drinking and alcohol-related consequences in female students. In two samples of college students, social camaraderie emerged as the most endorsed reason for drinking, and this social motivator was associated with alcohol consumption levels more strongly than enhancement or coping motives. In men, similar to Carey and Correia (1997), the impact of

motives on problems appears mediated by consumption level. However in women, even after controlling for previous consumption, social motives were a significant predictor of alcohol consequences in both samples.

Social motives have typically been thought of as normative and less associated with negative consequences, partially due to prior studies reporting that drinking for internal/personal reasons was associated with more alcohol problems (Cooper, 1994; Cooper et al., 1992; Cronin, 1997). Importantly, in two distinct samples, the relationships between social reasons for drinking and both drinking variables and consequences were consistent. For women, these results suggest a relationship between social reasons for drinking and alcohol-related consequences, which previous research has not identified. It has typically been thought that social motives predicted increased consumption and that higher consumption levels led to consequences. Something different appears to be the case for women. Although consumption does predict consequences, social motives predict consequences over and above alcohol use.

The implications for women experiencing negative consequences as a result of socially motivated drinking can be readily understood and include acts such as forced sexual encounters or regrettable intercourse. For college women, if drinking is often a way of making friends, establishing more intimate relationships, and of lubricating social interactions, then resulting consequences may be endured to be successful in these relational goals. The direct relationship from social motives to consequences in women may be reflective of the failure of women to experience the outcomes desired from social goal-directed drinking (problems with friends, failure to find adequate intimacy, etc.).

The ability to generalize the results is limited as the samples came from a single site. Future research into college drinking motivators should use diverse samples across multiple sites. It may be helpful to replicate the current findings using alternative scales as well, such as Cooper's (1994) modified Drinking Motives Questionnaire, which had added a fourth motive

labeled "conformity." Conformity could also be viewed as a subscale of social reasons for drinking, reflecting implicit or explicit social pressure.

Attempting to replicate these results using different motives constructs may help in explaining varying results within the drinking motives research surrounding associated consequences. Using Cronin's Reasons for Drinking Scale (1997), we have discrepant results from other similar studies. This discrepancy may be due to the failure of other studies to look at gender differences in the relationship between social motives and consequences. It may also be the case that women are experiencing more socially related alcohol consequences, such as relationship disruption and interpersonal hurt feelings. But discrepant findings may also be due to construct issues in the drinking motive literature, evidenced by various definition-related problems. For example, the same item, "drinking to get high" is placed by Cooper on the "enhancement motives" subscale in the Drinking Motives Questionnaire (Cooper, 1992) and on the "social camaraderie" subscale in Cronin's measure (1997). Kuntsche and colleagues (2005) support this idea and attribute gaps in the research to the use of different theoretically and empirically based measures in various studies.

A potentially new direction building on the current research would be to more deeply understand women's reasons for engaging in social drinking (e.g. low self-esteem, need for affiliation, desire for intimate relationships). Future research could also address this issue with a more contextual focus, as students probably do not drink uniformly for one reason alone. Reasons for drinking likely change with varying circumstances and in different situations and appear to be moderated by context (Kairouz et al., 2002). When individuals change their drinking motives, any resulting negative consequences experienced could likely change as well. More research is needed to explore women's reasons for drinking, accompanying problems, and the underlying psychosocial traits associated with these reasons.

The findings of this study highlight the importance of a deeper understanding of students' social motives for drinking and point to a unique and potentially important gender difference in the relationship between motives, drinking and negative consequences. The social facilitation effect of drinking motives appears to affect young adults through increasing the frequency of their drinking (Hussong, 2003), and drinking is related to negative consequences. But beyond this mediated link between social motives and consequences, a direct link exists among female students. Although mood enhancement and tension reduction reasons are still important to examine, the factor of drinking to be social with friends, especially in female students, appears to have more of a detrimental effect than previously considered. A deeper understanding of this outcome could add to the effectiveness of designing and implementing preventative intervention programs on college campuses.

References

Baer, J.S. Student factors: Understanding individual variation in college drinking. J. Stud. Alcohol. **14:** 40-53, 2002.

Billingham, R.E., Parrillo, A.V., and Gross, W.C. Reasons given by college students for drinking: A discriminant analysis investigation. Int. J. Addict. **28:** 193-802, 1993.

Brennan, A.F., Walfish, S., and AuBuchon, P. Alcohol use and abuse in college students: Social/environmental correlates, methodological issues, and implications for intervention. Int. J. Addict. **21:** 475-493, 1986.

Caldwell, P. E. Drinking levels, related problems and readiness to change in a college sample. Alcoholism Treatment Quarterly **20**: 1–15, 2002.

Carey, K.B. Situational determinants of heavy drinking among college students. J. Counsel. Psych. **40:** 217-220, 1993.

Carey, K.B. Heavy drinking contexts and indices of problem drinking among college students. J. Stud. Alcohol **56:** 287-292, 1995.

Carey, K.B. and Correia, C.J. Drinking motives predict alcohol-related problems in college students. J. Stud. Alcohol **58**: 100-105, 1997.

Colder, C. R. and O'Connor, R. Attention biases and disinhibited behavior as predictors of alcohol use and enhancement reasons for drinking. Psychol. Addict. Behav. **16:** 325-332, 2002.

Cooper, M.L. Reasons for drinking among adolescents: Development and validation or a four- dimensional measure of drinking motives. Psychol. Assess. **6:** 117-128, 1994.

Cooper, M.L., Russell, M., Skinner, J.B., and Windle, M. Development and validation of a three-dimensional measure of drinking motives. Psychol. Assess. **4:** 123-132, 1992.

Cronin, C. Reasons for drinking versus outcome expectancies in the prediction of college student drinking. Subst. Use Misuse **33:** 1287-1311, 1997.

Gleason, N. A. Preventing alcohol abuse by college women: a relational perspective. J. Am. Coll. Health, **43**: 15-25, 1994.

Goodwin, L. Social psychological bases for college alcohol consumption. J. Alcohol Drug Educ. **36:** 83-95, 1990.

Gotham, H.J., Sher, K.J., and Wood, P.K. Predicting stability and change in frequency of intoxication from the college years to beyond: Individual-difference and role transition variables. J. Abnorm. Psychol. **106:** 619-629, 1997.

Haden, T.L. and Edmundson, E.W. Personal and social motivations as predictors of substance use among college students. J. Alcohol Drug Educ. **21:** 303-312, 1991.

Ham, L.S. and Hope, D.A. College students and problematic drinking: A review of the literature. Clinical Psychol. Rev. **23:** 719-759, 2003.

Hanson, D. J. Drinking attitudes and behaviors among college students. J. Alcohol Drug Educ. **19:** 6-14, 1974.

Harford, T. C., and Grant, R. F. Psychosocial factors in adolescent drinking contexts. J. Stud. Alcohol **48**: 551-557, 1987.

Hingson, R., Heeren, T., Winter, M., and Wechsler, H. Magnitude of alcohol-related mortality and morbidity among U.S. college students ages 18-24: Changes from 1998 to 2001. Annu. Rev. Public Health **26:** 259-79, 2005.

Hussong, A.M. Social influences in motivated drinking among college students. Psychol. Addict. Behav. **17:** 142-150, 2003.

Kairouz, S., Gliksman, L., Demers, A., and Adlaf, E.M. For all these reasons, I do…drink: A multilevel analysis of contextual reasons for drinking among Canadian undergraduates. J. Stud. Alcohol **63**: 600-608, 2002.

Kuntsche, E., Knibbe, R., Gmel, G., and Engels, R. Why do young people drink? A review of drinking motives. Clinical Psychol. Rev. **25**: 841-861, 2005.

Klein, H. Self-reported reasons for why college students drink. J. Alcohol Drug Educ. **37:** 14-28, 1992.

LaBrie, J.W., Pedersen, E.R., and Earleywine, M.A. Group administered Timeline Followback assessment of alcohol use. J. Stud. Alcohol **66:** 693-697, 2005.

Larimer, M. E., and Cronce, J. M. Identification, prevention and treatment: A review of individual-focused strategies to reduce problematic alcohol consumption by college students. J. Stud. Alcohol **14**: 148–163, 2002.

McCarty, D., and Kaye, M. Reasons for drinking: Motivational patterns and alcohol use among college students. Addict. Behav. **9:** 185-188, 1984.

National Institute on Alcohol Abuse and Alcoholism. *A call to action: Changing the culture of drinking at U.S. colleges* (NIH Publication No. 02-5010). Rockville, MD, Author, 2002.

O'Hare, T.M. Drinking in college: Consumption patterns, problems, sex differences and legal drinking age. J. Stud. Alcohol **51:** 536-541, 1990.

O'Malley, P.M. and Johnston, L.D. Epidemiology of alcohol and other drug use among American college students. J. Stud. Alcohol **14**: 23-39, 2002.

Pedersen, E.R., and LaBrie, J.W. A within-subjects validation of a group administered Timeline Followback for alcohol use. J. Stud. Alcohol. **67:** 332-335, 2006.

Simons, J., Correia, C.J., and Carey, K.B. A comparison of motives for marijuana and alcohol use among experienced users. Addict. Behav. **25:** 153-160, 2000.

Sobell, L.C., and Sobell, M.B. Timeline followback: A technique for assessing self-reported alcohol consumption. In Litten, R.Z. and Allen, J.P. (Eds.) Measuring alcohol consumption: Psychosocial and biological methods. Totowa, NJ: Humana Press, 1992, pp. 41-72.

Stewart, S. H. and Chambers, L. Relationships between drinking motives and drinking restraint. Addict. Behav. **25:** 269-274, 2000.

Stewart, S.H., Zeitlin, S. B., and Samoluk, S. B. Examination of a three-dimensional drinking motives questionnaire in a young adult university student sample. Behavior, Research, & Therapy **34:** 61-71, 1996.

Vince-Whitman, C. and Cretella, M. Alcohol use by college women: Patterns, reasons, results, and prevention. Catalyst: A publication of the higher education center for alcohol and other drug prevention, **5:** 4-5, 1999.

Wechsler, H., Davenport, A., Dowdall, G., Moeykens, B., and Castillo, S. Health and behavioral consequences of binge drinking in college. A national survey of students at 140 campuses. JAMA **272**: 1672-1677, 1994.

Wechsler, H., and Isaac, N. 'Binge' drinkers at Massachusetts colleges. Prevalence, drinking style, time trends, and associated problems. JAMA **267:** 2929-2931, 1992.

Wechsler, H., Lee, J., Kuo, M., and Lee, H. College binge drinking in the 1990's: A continuing problem. J. Am. Coll. Health **48:** 199-210, 2000.

White, H. R., and Labouvie, E. W. Towards the assessment of adolescent problem drinking. J. Stud. Alcohol **50:** 30-37, 1989.

Wood, M.D., Nagoshi, C.T. and Dennis, D.A. Alcohol norms and expectations as predictors of alcohol use and problems in a college student sample. Am. J. Drug Alcohol Abuse **18:** 461-476, 1992.

Wood, M.D., Read, J.P., Palfai, T.P., and Stevenson, J.F. Social influence processes and college student

drinking: The mediational role of alcohol outcome expectations. J. Stud. Alcohol **62:** 32-43, 2001.

Young, A. M., Morales, M., McCabe, S. E., Boyd, C. J., and D'Arcy, H. Drinking like a guy: Frequent binge drinking among undergraduate women. Subst. Use Misuse, **40**: 241-267, 2005.

Table 1

Means and standard deviations of key variables by sample and by sex.

Variable	Volunteers (n = 104: 35 men, 71 women)		Adjudicated (n = 119: 71 men, 48 women)	
	Mean (Standard Deviation)		*Mean (Standard Deviation)*	
Variable	**Men**	**Women**	**Men**	**Women**
Total drinks	39.37 (46.76)	29.40 (31.74)	72.81 (53.83)	30.06 (30.94)
RAPI composite	5.06 (4.93)	5.51 (5.67)	7.09 (6.72)	6.06 (6.51)
Mood Enhancement	4.66 (4.23)*	4.63 (3.28)*	8.23 (2.77)*	7.21 (3.13)*
Social Camaraderie	8.06 (3.51)*	7.06 (3.18)*	10.04 (2.94)*	9.37 (3.85)*
Tension Reduction	3.66 (3.26)*	2.73 (2.37)*	6.56 (3.39)*	5.70 (5.01)*

* Difference between Social Camaraderie and other drinking motives at $p < .001$ within sample and within sex
Note: There were no differences between males and females within samples on any variables, except total drinks in the adjudicated sample.

Table 2

Correlations between reasons for drinking factors and variables of drinking and consequences by sample and sex.

Correlations for Volunteers

Variable	Mood Enhancement		Social Camaraderie		Tension Reduction	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Total drinks	.18	.20	.29	.35**	.14	.01
Drinking days	.19	.17	.26	.26*	.11	-.05
Average drinks	.18	.19	.20	.33**	.16	.13
Heavy Drinking Events	.20	.14	.27	.27*	.16	.01
RAPI composite	.40*	.43**	.50**	.60**	.42*	.36**

Correlations for Adjudicated Participants

Variable	Mood Enhancement		Social Camaraderie		Tension Reduction	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Total drinks	-.14	-.04	.33**	.38**	.11	.19
Drinking days	-.03	.04	.43**	.36*	.19	.24
Average drinks	-.12	-.12	.15	.33*	-.01	.09
Heavy Drinking Events	-.08	.06	.40**	.43**	.11	.28
RAPI composite	-.14	.15	.12	.52**	.19	.34*

** Correlation is significant at *p* < .05   **Correlation is significant at *p* < .01
Note: Heavy Drinking Events signifies 5 or more (4 or more for females) drinks in a row during one sitting.