



Digital Commons@

Loyola Marymount University
LMU Loyola Law School

Heads Up!

Psychological Science

12-2011

Comparing Greek-Affiliated Students and Student Athletes: An Examination of the Behavior-Intention Link, Reasons for Drinking, and Alcohol-Related Consequences

Karen K. Huchting

Loyola Marymount University, karen.huchting@lmu.edu

Andrew Lac

Loyola Marymount University, andrew.lac@lmu.edu

Justin F. Hummer

Loyola Marymount University, jhummer@usc.edu

Joseph W. LaBrie

Loyola Marymount University, jlabrie@lmu.edu

Follow this and additional works at: <https://digitalcommons.lmu.edu/headsup>



Part of the [Psychology Commons](#)

Repository Citation

Huchting, Karen K.; Lac, Andrew; Hummer, Justin F.; and LaBrie, Joseph W., "Comparing Greek-Affiliated Students and Student Athletes: An Examination of the Behavior-Intention Link, Reasons for Drinking, and Alcohol-Related Consequences" (2011). *Heads Up!*. 48.

<https://digitalcommons.lmu.edu/headsup/48>

This Article - post-print is brought to you for free and open access by the Psychological Science at Digital Commons @ Loyola Marymount University and Loyola Law School. It has been accepted for inclusion in Heads Up! by an authorized administrator of Digital Commons@Loyola Marymount University and Loyola Law School. For more information, please contact digitalcommons@lmu.edu.

Published in final edited form as:

J Alcohol Drug Educ. 2011 December 1; 55(3): 61–81.

Comparing Greek-Affiliated Students and Student Athletes: An Examination of the Behavior-Intention Link, Reasons for Drinking, and Alcohol-Related Consequences

Karie K. Huchting, Ph.D., Andrew Lac, Ph.D., M.P.A., Justin F. Hummer, B.A., and Joseph W. LaBrie, Ph.D.

Loyola Marymount University

Abstract

While affiliation with Greek fraternities/sororities and intercollegiate athletic teams is associated with heavier drinking (Meilman et al., 1999), few studies have compared reasons for drinking among these groups. A sample of 1,541 students, identifying as either Greeks or athletes, completed an online survey. Athletes were significantly higher than Greeks on conformity reason for drinking. Tests of independent correlations indicated the magnitude of the past behavior to intention link was considerably stronger for Greeks. Greeks experienced significantly more social problems from drinking. Several group by gender ANOVA models found significant main effects with highest drinking rates, usually among Greek males, and lowest among female athletes. Understanding these specific group differences informs recommendations for group-specific and tailored educational interventions, which are discussed.

Keywords

college drinking; intentions; Greek affiliation; college student athletes

Heavy drinking persists as a serious social, academic, and health concern among college students, with consequences ranging from missed classes and hangovers to damaged property, fights, sexual assaults, and even death (Hingson, Zha, & Weitzman, 2009; Hingson, Heeren, Winter, & Wechsler, 2005; Wechsler, Dowdall, Maenner, Gledhill-Hoyt, & Lee, 1998; Wechsler, Lee, Kuo, & Lee, 2000). Yet, despite publicity and a massive proliferation of prevention and intervention efforts to curb college drinking, prevalence rates of high-risk drinking and related consequences have remained relatively stable since 1993 (Hingson et al., 2009; Johnson, O'Malley, Bachman, & Schulenberg, 2005; Nelson, Xuan, Lee, Weitzman, & Wechsler, 2009). With drinking rates and consequences continuing to be an issue on college campuses, practitioners and researchers have to ask, "Who is at risk for engaging in heavy drinking?" Research indicates that critical risk factors associated with heavy drinking on college campuses include male gender and Greek (i.e., fraternity/sorority) or athletic affiliation (Baer, 2002; Park, Sher, & Krull, 2008; Walters & Baer, 2006). In fact, Greek students and student-athletes have been identified as high risk groups for alcohol

consumption when compared to the general population (Meilman, Leichliter, & Presley, 1999). Therefore, the current study seeks to extend prior research suggesting that Greek or athletic affiliation contributes to heavier drinking by comparing both the behaviors and intentions of these two groups. Further, comparisons across gender and group affiliation will be examined, including similarities and differences in drinking patterns, especially reasons for drinking, and drinking consequences. While much is known about these groups individually, comparing the differences in patterns of drinking and reasons for drinking across groups will allow college personnel to make informed decisions about intervention practices, tailoring educational efforts to reduce risky consumption and negative consequences.

Greek affiliation places students at greater risk for heavy alcohol consumption (Park et al., 2008). Studies comparing Greek-affiliated to nonGreek-affiliated students find that Greek students drink more heavily and more frequently (Cashin, Presley, & Meilman, 1998; Sher, Bartholow, & Nanda, 2001; Wechsler, Dowdall, Davenport, & Castillo, 1995), perceive alcohol as more acceptable (Larimer, Irvine, Kilmer, & Marlatt, 1997), experience more frequent and severe alcohol-related consequences (e.g., Cashin et al., 1998; Engs, Diebold, & Hanson, 1996; Larimer, Anderson, Baer, & Marlatt, 2000; Lo & Globetti, 1995), and are less likely to seek treatment or use campus resources for alcohol problems (Klein, 1989). Likewise, national studies comparing college athletes to nonathletes have found that athletes consume more average drinks per week, engage in more frequent heavy drinking, and subsequently experience more alcohol-related consequences (Hildebrand, Johnson, & Bogle, 2001; Leichliter, Meilman, Presley, & Cashin, 1998; Nelson & Wechsler, 2001; Wechsler, Davenport, Dowdall, Grossman, & Zanakos, 1997). In fact, student athletes compared to nonathletes are more likely to "binge" (defined as five drinks for men and four drinks for women, in a two hour period; Wechsler et al., 1995) when they drink (Ford, 2007), to be drunk three or more times in a month, and to report drinking to get drunk as an important reason for drinking (Nelson & Wechsler, 2001). Clearly, this alcohol-related risk associated with affiliation to these groups necessitates a greater understanding of shared and discrepant drinking characteristics that could be used to help tailor effective prevention and intervention initiatives.

While research has examined these within-group tendencies, few studies have compared Greek-affiliated students and athletes. One study by Meilman, Leichliter, and Presley (1999) examined students who participated in either group or both groups, and found that Greek-affiliated student athletes consumed the most alcohol; followed by Greek-affiliated nonathlete students, nonGreek student athletes, and then nonGreek and nonathlete (general) students. These findings confirm that involvement in the Greek system and athletics, each independently as well as in conjunction, contribute to heavier drinking patterns. To extend this line of research, the current study proposes to compare the reasons why Greek-affiliated students and athletes drink alcohol. While membership in these groups is associated with heavier drinking, athletes may have different reasons for engaging in alcohol consumption than Greek students. Moreover, Greeks may have different patterns for drinking than athletes. Understanding these reasons for drinking may contribute to intervention efforts to reduce heavy drinking among these groups by tailoring programs to match their specific needs.

The current study sought to compare drinking patterns, negative alcohol-related consequences, reasons for drinking, and intentions to drink between these two high-risk groups of athletes and Greek students and also compare male and female members across these groups. Based on the research suggesting that Greek students drink more frequently (e.g., Cashin et al., 1998) and perceive alcohol use as more acceptable than nonGreeks (e.g., Larimer et al., 1997), we specifically hypothesized that Greek students would engage in alcohol use more often (drinking days); whereas athletes, who have been identified by research as being likely to engage in more frequent heaving drinking (e.g., Leichliter et al., 1998), would tend to consume more (maximum drinks) when they drink. Furthermore, because heavy consumption is associated with negative consequences, the consequences of drinking will also be compared across these groups; however, no a priori hypotheses are anticipated for consequences given the limited research on these effects among these specific cohorts. Moreover, prior drinking experiences of college students are particularly salient intrapersonal indicators of future drinking decisions. Somewhat counter intuitively, research indicates that college students who experience negative consequences are at greater risk for participating in risky drinking and experiencing similar adverse consequences in the future (Mallett, Lee, Neighbors, Larimer, & Turrisi, 2006). Thus, we anticipate that for both Greek students and student athletes, past alcohol related consequences will be positively associated with future intentions to drink. Likewise, drinking patterns among males and females will be compared and explored by group membership, as research consistently indicates that males in adolescent, college, and non-college samples have a higher prevalence than females of more serious drinking patterns such as binge drinking, daily drinking, and problems resulting from drinking (Harrell & Karim, 2008; NIAAA, 2007; Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism, 2002; Windle, 2003).

Finally, in addition to examining these drinking patterns and consequences across groups, several health behavior models indicate the important role of intentions in predicting behavior (e.g., Ajzen & Fishbein, 1980; Ajzen, 1985, 1991). When applied to drinking alcohol, these theoretical models offer explanations for drinking and highlight specific constructs to be targeted by interventions to reduce drinking. Yet, there continues to be debate in the field as to the role of previous behavior as an explanation for future drinking, which is traditionally not included in these models. While intentions are clearly an important proximal predictor of future action, the role of previous behavior in forming intentions is worthy of investigation. Considering that both athletes and Greek-affiliated students are labeled as heavy drinkers, understanding the link from their previous drinking behavior to intentions to drink in the future may shed light on how to specifically intervene with drinking behavior cycles. Therefore, this study will extend prior research to investigate the relationship between previous drinking behavior and intentions to drink among these two groups.

METHOD

Participants

The current study examined a large sample of students from two universities on the west and east coasts. The selected universities were chosen because of their comparable settings (private mid-size) yet geographically opposite regions. Participants identified as being a member of a National Collegiate Athletic Association (NCAA) Division I intercollegiate athletic team or a member of a Greek student organization (fraternity or sorority). Of the 1,575 completed questionnaires, 34 (2.16%) were omitted due to participants who had completed the survey twice—once as an athlete and once as a Greek. In addition to the comparatively small sample of participants with dual affiliations, inclusion of these cases would violate the assumption of independence in statistical tests comparing Greeks and athletes. The remaining sample consisted of 1,541 participants, with 40.6% ($n = 626$) intercollegiate athletes and 59.4% ($n = 915$) Greek-affiliated students completing the online survey. The student athlete sample had a recruitment rate of 88.8% (626 out of 705 recruited) while the Greek-affiliated student sample had a recruitment rate of 80.4% (915 out of 1138 recruited). Mean age of athletes ($M = 19.58$, $SD = 1.34$) was similar to that of Greeks ($M = 19.65$, $SD = 1.13$), $t(1481) = .76$, ns. Further demographic characteristics of the athlete and Greek samples are presented in Table 1. Due to incomplete responses, sample sizes for analyses in this study ranged from 1,438 to 1,541.

Procedure

The current study examined baseline data from two larger intervention research programs, designed to reduce drinking patterns by correcting misperceptions of group norms (see LaBrie et al., 2009; LaBrie et al., 2008). These two interventions sought to examine within-group drinking patterns of cohesive and high-risk student groups (one study had a sample of all Greek-affiliated students, and the other study had a sample of all college student athletes). These programs of research were conducted at the students' universities, and both studies implemented similar procedures. Data collection occurred online, and only the baseline (preintervention) data were analyzed for the purpose of this current study. Institutional Review Board approval was obtained prior to data collection.

Measures

The questionnaire assessed demographic questions including age, gender, race, grade point average (GPA), and family income. Other measures were selected based on their high relevance and importance toward an understanding of alcohol use processes among the targeted groups:

Past alcohol use—Previous alcohol behavior was assessed via a self-report drinking index (Baer, Marlatt, & McMahon, 1993; Dimeff, Baer, Kivlahan, & Marlatt, 1999; Marlatt, Baer, & Larimer, 1995). Students were asked to fill in a response measuring the past 30 days: average drinks ("On average, how many drinks did you have each time you drank?"); drinking days ("On average, how many days per month did you drink alcohol?"); and maximum drinks ("What is the maximum number of drinks you drank at any one time?"). A 'total drinks per month' variable was computed by multiplying average drinks per occasion

and average drinking days in the past month. These behavioral items used an open-ended response format.

Intentions—Students were asked to self-report their intentions to drink over the next 30 days in an open-ended response format. The intentions to drink index was modeled after the self-report index for alcohol use and included their intended number of drinks per month, average drinks per occasion, drinking days, and maximum drinks. To assess intended average drinks, participants were asked, "On average, how many drinks do you intend to drink per drinking occasion?" Intended drinking days were assessed by asking, "On average, how many days do you intend to drink alcohol in the next 30 days?" To assess intended maximum drinks, students were asked, "During the next 30 days, what is the maximum number of drinks you intend to drink at any one time?" Finally, an 'intended drinks per month' variable was calculated by multiplying intended average drinks and drinking days.

Reasons for drinking—Motivations for drinking alcohol were assessed using the 20-item Drinking Motives Questionnaire (DMQ; Cooper, 1994), and its four subscales of Conformity ($\alpha = .86$; e.g. "Because your friends pressure you to drink"), Coping ($\alpha = .84$; e.g. "To cheer up when you are in a bad mood"), Enhancement ($\alpha = .90$; e.g. "Because it gives you a better feeling"), and Social motives ($\alpha = .93$; e.g. "Because it improves social gatherings and parties"). Items were anchored from 1 (*almost never/never*) to 5 (*almost always/always*).

Alcohol-related consequences—Consequences from alcohol use were assessed using the 8-item revised College Alcohol Problem Scale (CAPS-r; Maddock, Laforge, Rossi, & O'Hare, 2001), which has two 4-item subscales. The Personal Problems subscale ($\alpha = .85$), included items, "Feeling sad, blue, or depressed," "Nervous, irritability," and "Caused you to feel bad about yourself." The Social Problems subscale ($\alpha = .77$), included items, "Engaged in unplanned sexual activity," "Drove under the influence," and "Did not use protection when engaging in sex." This scale ranged from 1 (*never*) to 6 (*10 or more times*).

RESULTS

Initial Analyses

Analyses of demographic differences in proportions between athletes and Greeks (Table 1) indicated that a greater proportion of Greeks were females, $X^2(1) = 61.09, p < .001$, racial differences existed as a function of group affiliation, $X^2(5) = 47.05, p < .001$, GPA tended to be higher in Greeks, $X^2(4) = 159.53, p < .001$, and family income also tended to be higher in Greeks, $X^2(4) = 30.08, p < .001$. Additional analyses, focusing specifically on athletes, examined the seasonality of their sport: 61.2% indicated in-season and 38.8% out-season. Intended maximum drinks was found to be significantly lower for in-season athletes ($M = 5.04, SD = 5.08$) than out-season athletes ($M = 6.12, SD = 4.73$), $t(586) = 2.62, p < .01$, but no significant differences emerged as a function of seasonality of sport on the other intended drinks or past alcohol use measures.

Mean Differences as a Function of Group Affiliation x Gender

A series of 2 (group affiliation: athletes vs. Greeks) x 2 (gender: males vs. females) between-subjects ANOVA models were estimated to assess mean differences across these groups. Serving as the dependent measures in these models were drinking intentions (intended drinks per month, average drinks, drinking days, and maximum drinks), past alcohol use (drinks per month, average drinks, drinking days, and maximum drinks), reasons for drinking, (DMQ subscales: coping, conformity, enhancement, and social), and negative consequences (CAPS subscales: personal problems and social problems). Results for these main effects and interactions are presented in Table 2 and elaborated next.

Group affiliation—Main effects for group affiliation revealed that Greeks reported significantly higher mean scores than athletes on intentions concerning drinks per month, drinking days, and maximum drinks. Greeks also reported significantly higher levels on the past alcohol use indicators of drinks per month and drinking days than athletes. Athletes, however, scored significantly higher on one indicator of past alcohol use, maximum number of drinks. There were no significant mean differences on reasons for drinking, except that athletes reported significantly higher conformity motives than Greeks. Alcohol-related consequences also were examined, with Greeks encountering significantly more social problems related to alcohol than athletes.

Gender—Main effects for gender indicated that males scored significantly higher than females on practically all measures. The two exceptions were coping motives and personal problems, as both measures were not shown to be significantly different as a function of gender.

Group affiliation and gender—Several statistically significant interaction effects between group affiliation and gender were observed on intended drinking days, past alcohol use of drinking days, and past alcohol use of maximum drinks. These three interactions are graphed in Figure 1. Across all three graphs, male athletes endorsed higher values on these measures than female athletes, but among Greeks, the gender disparity was even more pronounced. Overall, in evaluating mean differences across group affiliation and gender, results tended to reveal that Greek males were most at risk for consuming alcohol, whereas female athletes were least at risk.

Correlations with Alcohol Intentions

Next, we examined associations between risk variables and intentions to consume alcohol. Pearson correlations tested associations of past alcohol use, reasons for drinking (DMQ), and drinking consequences (CAPS) with each of the four drinking intentions, to determine whether each correlation coefficient was significantly different from a null hypothesis correlation of zero. These analyses were performed separately for athletes and Greeks. According to proposed guidelines for evaluating effect sizes, the strength of the correlation could be interpreted as follows: small $r = .10$, medium $r = .30$, larger $r = .50$ (Cohen, 1992). As shown in Table 3, all past alcohol use measures, reasons for drinking subscales, and alcohol-related consequences subscales were significantly and positively correlated with drinking intentions. In other words, higher levels of past alcohol use, reasons for drinking,

and alcohol-related consequences were linked to corresponding higher intentions to drink in the future. This pattern of results was demonstrated for both athletes and Greeks. A noteworthy finding is that encountering alcohol-related personal and social problems was related to having higher intentions to consume alcohol. This particular finding suggests that the tolerance effects attributed to habitual exposure to negative consequences of alcohol may be maladaptive, in that it enhances the formation of intentions to consume alcohol.

Differences in Correlations with Alcohol Intentions as a Function of Group Affiliation

Finally, analyses determined whether the correlation of the measures with alcohol intentions varied systematically as a function of athlete versus Greek affiliation. This analysis would offer insight into whether the link of risk variables to intentions to pursue alcohol was stronger in one group over the other. Specifically, we performed tests of independent correlations, using the Z test, which assesses whether two correlation coefficients from separate samples (athletes vs. Greeks) are statistically different in magnitude. As shown in Table 3, the majority of past alcohol use variables were more positively correlated with alcohol intentions for Greeks than athletes, suggesting that past drinking habits were more likely to foster intentions to drink in Greeks. Correlation coefficients were not significantly different between athletes and Greeks on any of the reasons for drinking variables. However, positive correlations of social problems with both intended drinking days and intended maximum drinks were revealed to be significantly stronger in Greeks.

DISCUSSION

Affiliation with Greek fraternities/sororities and intercollegiate athletic teams is associated with heavier drinking (Meilman et al., 1999). This study sought to compare these two groups in terms of their previous drinking, consequences from drinking, reasons for drinking, and intentions to drink. Specifically, findings supported the hypothesis that Greek-affiliated students drink more frequently (drinking days) while athletes consume more heavily when they drink (maximum drinks). Greek students also reported significantly more previous drinks per month, possibly a product of more frequent drinking. Greek students also reported significantly greater social problems from drinking, reflected by items such as engaging in unplanned and unprotected sexual activity, driving under the influence, and illegal activities associated with drug use. On reasons for drinking, athletes and Greeks differed significantly only on one motive conformity, reflected by items such as drinking due to pressure from friends and suggesting that group influence might be a more powerful force among athletes than Greek students. Furthermore, as expected, male students reported greater risk than female students, with male Greek students reported the highest drinking days, maximum drinks, and also highest intended drinking days; while female athletes reported the lowest alcohol consumption and intentions to drink among the categories. Thus, across these groups, female athletes were the least at-risk.

While comparing affiliation and gender patterns for these two high-risk groups is valuable information for tailoring intervention efforts, perhaps the most interesting finding comes from correlations comparing the behavior-intention link across these groups. While within both groups, past behavior correlated significantly and positively with intentions to drink in

the future, this relationship was stronger among the Greek students in this sample (see Table 3). One reason for this finding may be the pervasive culture of drinking within the Greek system in general. This belief may create a dynamic in which drinking is such an expected activity within the group, that there is little deviation between actual past drinking behaviors and expectations about drinking in the future, resulting in the strong past behavior-intention link. In addition to trying to change intentions to drink, interventions may also highlight the environment of drinking that is pervasive among this Greek culture and challenge this perception by highlighting other benefits of membership, such as philanthropic service and social support. In implementing such a program, drinking may become a less expected component of membership, and, thus, the association between Greek affiliation and heavy intended drinking may be weakened. Helping students engage in mindful decision-making processes may help students make responsible personal decisions about drinking, rather than simply repeating the habitual drinking behaviors of their past.

Conversely, among college athletes in this sample, the link between previous drinking and intentions to drink in the future was weaker than this same relationship among Greeks. On the one hand, this finding may at first appear to suggest that athletes are "safer" than Greek students, because their intentions to drink in the future are not as strongly based on the habit of their drinking behaviors in the past. However, this finding suggests that other factors are influencing the relationship between previous behavior and future intentions to drink. One factor may be the presence of situation-specific moderators such as inconsistent schedules or season-related emotional states whereby a hectic and inconsistent traveling schedule might interrupt party plans and hinder athletes from making consistent intentions to drink that match their previous drinking experiences. A team may also drink differently after a loss than after a win, depending on their emotional state. Another explanation for this finding is the presence of team pressure. Athletes reported "drinking to fit in" (conformity motive) to be significantly higher than Greek students, suggesting that in the moment, athletes feel pressure to drink like their peers, and may disregard personal drinking intentions. As such, athletes may get caught up in the moment of celebrating a win or dealing with the stress of a loss, and drink in conjunction with their teammates rather than following their personal intended drinking patterns. Therefore, interventions with athletes are encouraged to develop programs that incorporate role-playing, situation-specific scenarios that promote individual control over the behavior no matter the situation or emotion. By supporting the healthy messages they may already be receiving, athletes may be more likely to set healthy intentions to potentially be acted on.

Overall, this study provides an important examination of reasons for drinking between two already identified at-risk groups of college students: Greek students and student athletes. This study benefits from utilizing large samples of both groups and sheds light on the important role of the behavior-intention link among Greek-affiliated students. However, limitations should be taken into consideration including the use of cross-sectional data, limiting the ability to look at intentions and future behaviors to analyze the potential mediated pathway flowing from previous behaviors, intentions to drink in the future, and actual drinking behaviors. The noted significant difference between Greeks and athletes on this past behavior-intention link suggests that there is a difference between drinking patterns found among these groups. Future research might consider including previous behavior into

a model when examining the link between intentions and subsequent behavior longitudinally. Additionally, the causal connection between previous drinking and future intentions could not be unambiguously supported due to the use of correlational analyses. Yet, as one of the first studies to examine reasons for drinking and the role of previous drinking behaviors among these two recognized at-risk groups, correlational data still yields valuable insight.

In conclusion, this examination of athlete and Greek membership provides a more comprehensive picture of the reasons for drinking, drinking patterns, and relationship between previous behavior and intentions to drink in the future, than has been previously observed in the literature. These findings support the importance of understanding the link between previous behavior and future intentions to drink, especially among Greek-affiliated students, and suggest the benefit for college personnel to design programs that encourage athletes' senses of individual control, and challenge Greeks' perceptions of their system as a predominantly drinking culture.

Acknowledgments

This research was funded by a grant from the Alcoholic Beverage Medical Research Foundation and grant U18 AAO 15451-01 from the National Institute of Alcohol Abuse and Alcoholism.

REFERENCES

- Aarts H, Dijksterhuis A. Habits as knowledge structures: Automaticity in goal-directed behavior. *Journal of Personality and Social Psychology*. 2000; 78:53–63. [PubMed: 10653505]
- Ajzen, I. From decisions to actions: A theory of planned behavior. In: Kuhl, J.; Beckmann, J., editors. *Action-control: From cognition to behavior*. Springer; New York: 1985. p. 11-39.
- Ajzen I. The theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*. 1991; 50:179–211.
- Ajzen, I.; Fishbein, M. *Understanding attitudes and predicting social behavior*. Prentice Hall; Englewood Cliffs, NJ: 1980.
- Baer JS. Student factors: Understanding individual variation in college drinking. *Journal of Studies on Alcohol*. 2002; 14:40–53.
- Baer, JS.; Marlatt, GA.; McMahon, RJ. *Addictive behaviors across the life span: Prevention, treatment, and policy issues*. Sage Publications, Inc; Thousand Oaks, CA US: 1993. Etiology and secondary prevention of alcohol problems with young adults; p. 111-137.
- Cashin JR, Presley CA, Meilman PW. Alcohol use in the Greek system: Follow the leader? *Journal of Studies on Alcohol*. 1998; 59(1):63–70. [PubMed: 9498317]
- Cohen J. A power primer. *Psychological Bulletin*. 1992; 112:155–159. [PubMed: 19565683]
- Cooper ML. Reasons for drinking among adolescents: Development and validation of a four-dimensional measure of drinking motives. *Psychological Assessment*. 1994; 6:117–128.
- Dimeff, LA.; Baer, JS.; Kivlahan, DR.; Marlatt, GA. *Brief alcohol screening and intervention for college students (BASICS)*. The Guilford Press; New York, NY: 1999.
- Engs RC, Diebold BA, Hanson DJ. The drinking patterns and problems of a national sample of college students, 1994. *Journal of Alcohol and Drug Education*. 1996; 41(3):13–33.
- Ford JA. Alcohol use among college students: A comparison of athletes and nonathletes. *Substance Use & Misuse*. 2007; 42(9):1367–1377. [PubMed: 17886137]
- Harrell ZT, Karim NM. Is gender relevant only for problem alcohol behaviors? An examination of correlates of alcohol use among college students. *Addictive Behaviors*. 2008; 33(2):359–365. [PubMed: 17993250]

- Hildebrand K, Johnson D, Bogle K. Comparison of patterns of alcohol use between high school and college athletes and non-athletes. *College Student Journal*. 2001; 35(3):358–365.
- Hingson RW, Heeren T, Winter M, Wechsler H. Magnitude of alcohol-related mortality and morbidity among US college students ages 18-24: Changes from 1998 to 2001. *Annual Review of Public Health*. 2005; 26:259–279.
- Hingson RW, Zha W, Weitzman ER. Magnitude of and trends in alcohol-related mortality and morbidity among U.S. college students ages 18-24, 1998-2005. *Journal of Studies on Alcohol and Drugs*. 2009; (Supplement No. 16):12–20. [PubMed: 19538908]
- Johnston, LD.; O'Malley, PM.; Bachman, JG.; Schulenberg, JE. National Institute on Drug Abuse; Bethesda, MD: 2005. Monitoring the future national results on adolescent drug use: Overview of key findings, 2004. NIH Publication No. 05-5726
- Klein H. Helping the college student problem drinker. *Journal of College Student Development*. 1989; 30(4):323–331.
- LaBrie JW, Hummer JF, Huchting KK, Neighbors C. A brief live interactive normative group intervention using wireless keypads to reduce drinking and alcohol consequences in college student athletes. *Drug and Alcohol Review*. 2009; 28(1):40–47. [PubMed: 19320674]
- LaBrie JW, Hummer JF, Neighbors C, Pedersen ER. Live interactive group-specific normative feedback reduces misperceptions and drinking in college students: A randomized cluster trial. *Psychology of Addictive Behaviors*. 2008; 22:141–148. [PubMed: 18298241]
- Larimer M, Anderson B, Baer J, Marlatt G. An individual in context: Predictors of alcohol use and drinking problems among Greek and residence hall students. *Journal of Substance Abuse*. 2000; 11(1):53–68. [PubMed: 10756514]
- Larimer ME, Irvine DL, Kilmer JR, Marlatt GA. College drinking and the Greek system: Examining the role of perceived norms for high-risk behavior. *Journal of College Student Development*. 1997; 38(6):587–598.
- Leichliter JS, Meilman PW, Presley CA, Cashin JR. Alcohol use and related consequences among students with varying levels of involvement in college athletics. *Journal of American College Health*. 1998; 46(6):257–262. [PubMed: 9609972]
- Lo CC, Globetti G. The facilitating and enhancing roles Greek associations play in college drinking. *International Journal of the Addictions*. 1995; 30(10):1311–1322. [PubMed: 7591346]
- Maddock JE, Laforge RG, Rossi JS, O'Hare T. The college alcohol problems scale. *Addictive Behaviors*. 2001; 26:385–398. [PubMed: 11436930]
- Marlatt, G.; Baer, J.; Larimer, M. Alcohol problems among adolescents: Current directions in prevention research. Lawrence Erlbaum Associates, Inc; Hillsdale, NJ England: 1995. Preventing alcohol abuse in college students: A harm-reduction approach; p. 147-172.
- Meilman PW, Leichliter JS, Presley CA. Greeks and athletes: Who drinks more? *Journal of American College Health*. 1999; 47(4):187–190. [PubMed: 9919850]
- NIAAA. What Colleges Need to Know Now: An Update on College Drinking Research. National Institutes of Health, DHHS; Bethesda, MD: 2007. NIH publication no. 07-5010
- Nelson TF, Wechsler H. Alcohol and college athletes. *Medicine & Science in Sports & Exercise*. 2001; 33(1):43–47. [PubMed: 11194110]
- Nelson TF, Xuan Z, Lee H, Weitzman ER, Weschler H. Persistence of heavy drinking and ensuing consequences at heavy drinking colleges. *Journal of Studies of Alcohol and Drugs*. 2009; 70:726–734.
- Ouellette JA, Wood W. Habit and intention in everyday life: The multiple processes by which past behavior predicts future behavior. *Psychological Bulletin*. 1998; 124:54–74.
- Park A, Sher K, Krull J. Risky drinking in college changes as fraternity/sorority affiliation changes: A person-environment perspective. *Psychology of Addictive Behaviors*. 2008; 22:219–229. [PubMed: 18540719]
- Sher KJ, Bartholow BD, Nanda S. Short- and long-term effects of fraternity and sorority membership on heavy drinking: A social norms perspective. *Psychology of Addictive Behaviors*. 2001; 15(1): 42–51. [PubMed: 11255938]

- Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism. A call to action: Changing the culture of drinking at US colleges. (NIH Publication No 02-5010). National Institute on Alcohol Abuse and Alcoholism; Rockville, MD: 2002.
- Triandis, HC. Values, attitudes, and interpersonal behavior. In: Howe, HE., Jr.; Page, MM., editors. Nebraska symposium on motivation, 1979. University of Nebraska Press; Lincoln, NE: 1980. p. 195-259.
- Walters, ST.; Baer, JS. Talking with college students about alcohol: Motivational strategies for reducing abuse. Guilford Press; New York, NY: 2006.
- Wechsler H, Davenport AE, Dowdall GW, Grossman SJ, Zanakos SI. Binge drinking, tobacco, and illicit drug use and involvement in college athletics: A survey of students at 140 American colleges. *Journal of American College Health*. 1997; 45(5):195–200. [PubMed: 9069676]
- Wechsler H, Dowdall GW, Davenport AE, Castillo S. Correlates of college student binge drinking. *American Journal of Public Health*. 1995; 85:921–926. [PubMed: 7604914]
- Wechsler H, Dowdall GW, Maenner G, Gledhill-Hoyt J, Lee H. Changes in binge drinking and related problems among American college students between 1993 and 1997. *Journal of American College Health*. 1998; 47:57–68. [PubMed: 9782661]
- Wechsler H, Lee JE, Kuo M, Lee H. College binge drinking in the 1990s: A continuing problem: Results of the Harvard School of Public Health 1999 College Alcohol Study. *Journal of American College Health*. 2000; 48(5):199–210. [PubMed: 10778020]
- Windle M. Alcohol Use Among Adolescents and Young Adults. *Alcohol Research & Health*. 2003; 27(1):79–85. [PubMed: 15301402]
- Wood W, Neal DT. A new look at habits and the habit-goal interface. *Psychological Review*. 2007; 114:843–863. [PubMed: 17907866]
- Wood W, Quinn JM, Kashy DA. Habits in everyday life: Thought, emotion, and action. *Journal of Personality and Social Psychology*. 2002; 83:1281–1297. [PubMed: 12500811]
- Yalom ID, Rand K. Compatibility and cohesiveness in therapy groups. *Archives of General Psychiatry*. 1966; 15(3):267–275. [PubMed: 5911240]

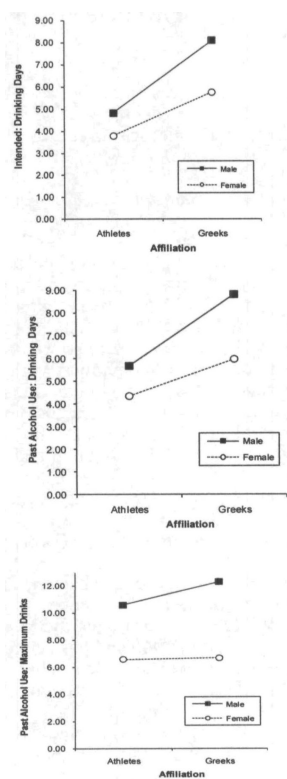


FIGURE 1.
Gender x group affiliation interactions.

Table 1

Demographic Characteristics

Characteristic		Athletes		Greeks	
		Percent	<i>n</i>	Percent	<i>n</i>
Gender					
	Male	45.5%	261	25.9%	237
	Female	54.5%	312	74.1%	678
Race					
	Caucasian	78.9%	449	70.9%	647
	Hispanic/Latino	6.7%	38	11.7%	107
	African American	5.6%	32	1.4%	13
	Asian/Pacific Islander	2.8%	16	5.7%	52
	Mixed	3.5%	20	7.0%	64
	Other	2.5%	14	3.2%	29
GPA					
	<2.0	1.8%	10	0.1%	1
	2.0-2.5	13.8%	79	1.2%	11
	2.6-2.9	26.8%	153	15.5%	142
	3.0-3.5	40.6%	232	57.3%	524
	3.6-.4.0	17.0%	97	25.9%	237
Family Income					
	\$0-\$25,000	3.8%	21	3.0%	27
	\$26,000-\$75,000	18.3%	100	14.7%	132
	\$76,000-\$150,000	38.8%	212	29.1%	260
	\$151,000-\$300,00	25.4%	139	30.7%	275
	Above \$300,000	13.7%	75	22.5%	201

Table 2

Two-Way ANOVA Models of Group Affiliation (Athletes vs. Greeks) and Gender (Males vs. Females)

Measure	Affiliation				Gender				Affiliation × Gender		
	Athletes		Greeks		Males		Females				
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)			
Intended											
Drinks Per Month	27.16	(39.92)	31.47	(31.68)	29.01**	44.73	(48.80)	22.38	(22.35)	157.48**	4.53
Average Drinks	4.41	(3.46)	4.05	(2.34)	0.13	5.57	(3.47)	3.50	(2.14)	187.59**	0.00
Drinking Days	4.26	(4.36)	6.36	(4.38)	114.28**	6.38	(5.22)	5.14	(4.02)	47.58**	7.04*
Maximum Drinks	5.49	(5.00)	5.79	(3.86)	27.28**	8.00	(5.44)	4.51	(3.05)	257.83**	5.76
Past Alcohol Use											
Drinks Per Month	34.04	(40.43)	35.52	(36.10)	17.55**	52.94	(47.68)	25.99	(27.77)	190.00**	5.94
Average Drinks	5.04	(4.01)	4.32	(2.56)	2.05	6.08	(3.59)	3.86	(2.73)	151.26**	0.73
Drinking Days	4.95	(4.09)	6.71	(4.82)	88.89**	7.16	(5.03)	5.47	(4.31)	67.64**	8.42*
Maximum Drinks	8.40	(6.11)	8.13	(5.20)	9.95*	11.41	(6.85)	6.65	(3.95)	274.48**	7.38*
Reasons for Drinking											
Coping	1.59	(0.79)	1.53	(0.64)	1.51	1.62	(0.78)	1.51	(0.66)	6.27	0.64
Conformity	1.39	(0.69)	1.24	(0.46)	17.43**	1.42	(0.71)	1.24	(0.46)	24.62**	1.74
Enhancement	2.37	(1.17)	2.38	(1.08)	0.97	2.58	(1.15)	2.27	(1.09)	27.13**	0.47
Social	2.73	(1.26)	2.65	(1.13)	0.05	2.89	(1.18)	2.58	(1.17)	20.59**	1.90
Alcohol-Related Consequences											
Personal Problems	1.35	(0.70)	1.41	(0.68)	3.31	1.43	(0.79)	1.36	(0.63)	4.83	0.20
Social Problems	1.31	(0.68)	1.38	(0.59)	12.53**	1.53	(0.84)	1.26	(0.46)	68.65**	0.28

Note. Results taken from 2 × 2 ANOVA models.

* $p < .01$.** $p < .001$.

Table 3
Differences Between Athletes (A) and Greeks (G) in Correlations with Drinking Intentions

Measure	Intended Drinks Per Month			Intended Average Drinks			Intended Drinking Days			Intended Maximum Drinks		
	A	G	Z test ^a	A	G	Z test ^a	A	G	Z test ^a	A	G	Z test ^a
Past Alcohol Use												
Drinks Per Month	.60**	.89**	-13.62**	.67**	.74**	-2.61*	.55**	.75**	-6.63**	.64**	.77**	-4.90**
Average Drinks	.45**	.75**	-9.12**	.75**	.89**	-8.39**	.38**	.54**	-3.81**	.63**	.82**	-7.76**
Drinking Days	.56**	.73**	-5.53**	.56**	.51**	1.31	.68**	.88**	-10.21**	.60**	.58**	0.57
Maximum Drinks	.45**	.72**	-7.90**	.74**	.76**	-0.85	.41**	.57**	-3.96**	.73**	.81**	-3.71**
Reasons for Drinking												
Coping	.25**	.23**	0.39	.27**	.22**	0.99	.29**	.30**	-0.20	.25**	.22**	0.55
Conformity	.21**	.12**	1.73	.16**	.14**	0.38	.18**	.14**	0.77	.11**	.12**	-0.19
Enhancement	.39**	.46**	-1.60	.52**	.46**	1.48	.41**	.48**	-1.63	.50**	.45**	1.21
Social	.33**	.41**	-1.73	.50**	.44**	1.44	.40**	.46**	-1.37	.46**	.43**	0.70
Alcohol-Related Consequences												
Personal Problems	.32**	.26**	1.22	.22**	.23**	-0.20	.29**	.31**	-0.41	.19**	.23**	-0.43
Social Problems	.38**	.42**	-0.89	.25**	.32**	-1.42	.31**	.45**	-3.07*	.23**	.39**	3.32**

^aTest of difference between two independent correlations (significant negative Z indicates Greeks had stronger relationship).

* $p < .01$.

** $p < .001$.