Pre-gaming: Alcohol Consumption of Underage and Of-age College Students

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Abstract

The previous literature on the pre-gaming phenomena is scant. The present study furthered this literature by exploring the rates of pre-gaming between of-age and underage students, as well as the differing reasons for why each group of students are pre-gaming. The relationship between the amounts of alcohol consumed while pre-gaming and the age of the college student were also examined. No significant differences were found in the frequency of pre-gaming or the average amount of alcohol consumed while pre-gaming in the two age groups. However, underage students’ reported reasons for pre-gaming differed from of-age students’ reasons. Less risk of getting caught was reported to be more important to underage students while cost was reported to be more important to of-age students. In addition, peer pressure had a significant effect on the average amount of alcohol consumed while pre-gaming by underage students.
Pre-gaming: Alcohol Consumption of Underage and Of-age College Students

Alcohol use, and problematic alcohol use in particular, has become a significant concern for colleges and universities nationwide. Recent estimates report that 72-80 percent of all college students drink alcohol (Engs, Diebold, and Hanson, 1996; Johnston, O’Malley, Bachman, & Schulenberg, 2004). In addition, the reports of college-aged binge drinking are much higher than those of the general population. Twelve percent of the general population reported binge drinking while over 26 percent of the college student population reported doing the same (Wechsler et al., 1995). Most college students in the United States are not legally allowed to purchase or consume alcohol, however. It was reported that 75% of underage students had consumed alcohol at least once in the two weeks before a later study (Wechsler et al., 2002).

College Alcohol Use

In many environments, it is widely accepted for college students to consume alcohol. However, some of these students may encounter alcohol use disorders before even finishing college. Clements (1999) found that younger college students were more likely to have a current alcohol-related disorder than older students—ages ranging from 18 to 55. The younger students were also found to drink heavier amounts than the older students but not more frequently. Over 25 percent of the students met the criteria for alcohol abuse or alcohol dependence (Clements, 1999).

Supporting the negative correlation between alcohol use and college year is the Reactance Theory (Engs & Hanson, 1990; Allen, Sprenkel, & Vitale, 1994). College is often the first time that young adults are living on their own and away from their parents. They are making more of their own decisions and give more freedoms than before. Most
college students feel they have a right to drink, so the underage students do so by
drinking at places they can’t get caught by authorities. However, since they are drinking
where there is ultimately no one to tell them not to, there is also no one around to monitor
their behavior. This lack of guidance contributes to excessive consumption when alcohol
is made available to these previously prohibited students (Engs, Diebold, & Hanson,
1996).

Binge drinking has been defined as 4 or more drinks per sitting for women and 5
or more drinks per sitting for men (Wechsler et al., 1995). In 1996, over 20 percent of
college students reported engaging in binge drinking (Engs, Diebold, and Hanson). Six
years later, when asked about alcohol consumption in a prior 2 week period, forty percent
of college students had engaged in binge drinking at least once (Wechsler et al., 2002).

Binge drinking can lead to risky behaviors. College students reported regretted
sexual experiences, fighting, accidents, injuries, hangovers, and poor academic
achievement as consequences of alcohol use (Coleman & Carter, 2005). Compared to
non-binge drinkers, 54 percent more of frequent binge drinkers were more likely to miss
a class, 36 percent more were behind in school work, 44 percent more did something they
regretted, 34 percent more engaged in unplanned sex, 23 percent more were injured, and
53 percent more drove after drinking (Wechsler et al., 2000). Alcohol use has been
associated with approximately 500,000 injuries and 70,000 sexual assaults per year
among college students 18 to 24 years old (Faden & Baskin, 2002). Not surprisingly,
females more often than males list hangovers and negative sexual experiences as a
consequence of drinking (Coleman & Carter, 2005).
Studies agree that an increase in alcohol consumption is related to a decrease in academic achievement (Engs & Hanson, 1986; Ford & Carr, 1990). Engs and Hanson found that drinking problems were more common among students with low GPAs (1986). Ford and Carr also found a similar relationship between fermented alcoholic beverages and low GPAs (1990).

Studies disagree on the relationship between college year and alcohol consumption. A few studies support a positive relationship between amount and frequency of drinking and college year (Wechsler, Dowdall, Davenport, & Castillo, 1995; Engs & Hanson, 1985, 1989; Crum, Helzer, & Anthony, 1993). According to the results of these studies, a student will drink more in his or her sophomore year than in his or her freshman year, more in the junior year than the sophomore year, and so on. Around the same time, studies were also finding a negative association between the same variables (Lotterhos, Holbert, & Glover, 1990; Schall et al., 1991; Gross, 1993; Engs, Diebold, & Hanson, 1996). They found that students drink less as they move up in college year.

**Self-Reported Reasons for Drinking**

The most common motives given for drinking are to celebrate, to relieve stress, peer pressure, and to help students socialize (Klein, 1992; Smith, Abbey, & Scott, 1993).

Celebrating as a motive for drinking is associated with higher BAC levels than non-celebratory reasons. It was found that celebrating as a motive for drinking resulted in a mean BAC of .096, while non-celebratory reasons resulted in a mean BAC of .074 (Glindeman, Wiegand, & Gellar, 2007). The differences between the motives for drinking also could have meant the difference between a drunk driving charge or not (a BAC of .08 or higher is considered drunk driving in the United States). Even higher than
usual rates of college drinking, 83 percent of students reported drinking to celebrate on their 21\textsuperscript{st} birthday and 12 percent of these drinkers reported consuming 21 alcoholic beverages (Rutledge, Park, & Sher, 2008). This behavior more than quadruples the amount necessary to qualify as binge drinking.

Relieving stress, specifically drinking to cope, is the strongest predictor of “frequency of binge drinking, quantity consumed, and drinking alone” which are also warning signs of alcohol use and/or dependency (Vicary & Karshin, 2002). Adolescents who are drinking to cope have been found to drink liquor and drink excessively (Kuntsche et al., 2006). As for reducing stress caused by social anxiety, Coleman and Carter (2005) found that underage binge drinkers reported increased confidence in social environments after drinking.

Both direct and indirect peer pressures are strong influences on college students’ drinking. A common example of indirect peer pressure is an upperclassman serving as a role model for a younger student. While around people who are believed to be drinking more, students tend to think it is okay to drink more too because they will still be drinking at or below the perceived “normal” amount (Borsari & Carey, 2001). When asked to compare their own alcohol consumption to their peers’ consumption, researchers found that students believed that their peers were drinking more (Broadwater, Curtin, Martz, and Zrull, 2006). Students will view their peers’ drinking behaviors as more severe or problematic than their own and this too can lead to more drinking.

Direct offers of alcohol are more accepted by earlier year students, possibly because they have not yet formed strong social bonds nor have the confidence to refuse alcohol (Borsari & Carey, 2001). It seems that new students are more readily accepting of
alcohol offers because they want to appear sociable and fit in with their peers. Because drinking is also used as a social lubricant, accepting offers of alcohol contributes to intoxication, which also helps the newer students feel more relaxed and able to bond with other students.

Pressure to drink alcohol comes not only from other students but from sociocultural influences as well. Although they deny purposefully doing so, alcohol advertising companies often influence college students (Vicary & Karshin, 2002). Other promotions such as “happy hour” and free drinks for the price of admission to a nightclub can also influence college students’ wanting to consume alcohol. Over 30 years ago, the “average” college student spent almost 450 dollars per year on alcohol (Erenberg & Hacker, 1977). Today, after accounting for inflation, that would be over 1500 dollars per year spent on alcohol (United States Department of Labor)!

**Pre-gaming**

A growing trend on college campuses that may be contributing to binge drinking and/or other alcohol related difficulties is the phenomenon referred to as pre-gaming. Pre-gaming has been defined as “the practice of consuming alcohol before attending a social function” (Borsari et al., 2007). The “game” is not limited to an actual game or other sporting event but it is possible that since alcohol is not permitted at all sporting events, students began drinking beforehand (tailgating) as a way of socializing with other fans. It has also been called “pre-partying,” “front-loading,” and “pre-loading” (Thomas, 2007; DeRicco & DeJong, 2007).

Although not much research has been done on the topic, the current literature suggests high rates of pre-gaming. However, it does not demonstrate high external
validity. In a survey of 112 college students at ten campuses in Pennsylvania, 87.7 percent reported drinking in the two weeks prior and 71.3 percent of those reported pre-gaming at least once in the same time period (DeRicco & DeJong, 2007). Students reported preferring to drink liquor while pre-gaming because of the higher alcohol content, the ease of sneaking it into dorm rooms, and the lowered risk of detection of consumption compared to that of beer or wine while around authorities (DeRicco & DeJong, 2007). The existence of a difference of reasons for pre-gaming between of-age and underage students has not yet been examined.

In an attempt to lessen the negative impact of alcohol on campuses, school administrations have been implementing alcohol education and prevention, policies and penalties for alcohol use, and environmental management (Faden & Baskin, 2002; DeJong & Langford, 2002). An environmental management tactic introduced to decrease problematic alcohol use on campus was the option of more alcohol-free events on campus (DeJong & Langford, 2002). However, students that still wanted to drink alcohol were able to do so by pre-gaming before the non-alcoholic events.

Through a brief survey and discussion, it was found that the motives for pre-gaming were similar to those of drinking in general: relieving stress caused by social anxiety, making friends, and giving in to peer pressure in order to keep up with friends’ drinking behaviors, (DeRicco & DeJong, 2007). However, pre-gaming has motives of its own as well. It is often much less expensive to drink at home than at a bar. It is also more likely that an underage college student is able to drink in a dorm room without getting caught than successfully being served alcohol at a bar or restaurant. With the lowered risk
of getting caught, underage students feel able to drink as much as they want and as often as they want without worry of interruption or punishment.

As previously indicated, the existing literature on the pre-gaming phenomena is scant. The present study will attempt to further this literature by exploring the rates of pre-gaming between of-age and underage students, as well as the reasons for why each group of students are pre-gaming to see if they differ. Students may pre-game for some of the exact reasons many people drink, especially to relieve social anxiety. Drinking, whether out for the night or preparing to go out, acts as a social lubricant. Drinking before an event may make it easier for people to relax and have a good time as soon as they are out in a public setting instead of having to wait until the first drink at the bar takes effect. The relationship between the amounts of alcohol consumed while pre-gaming and the age of the college student (of-age to drink and underage) will also be examined. It is hypothesized that underage students’ reasons for pre-gaming will differ from of-age students’ reasons- underage students’ reasons being less risk of getting caught, peer pressure, and bonding with friends while of-age students’ reasons would more often be cost, to cope or relieve stress, and to celebrate. It is also hypothesized that underage students’ pre-gaming will be more frequent and their alcohol consumption will be greater in amount than of-age students’ consumption.

Method

Participants

Participants in this study were 44 Marietta College students recruited from the college participant pool. The ages ranged from 18 to 23 years old ($M = 19.7$ years). Out of the 44 participants, 25 were male and 19 were female. 32 participants were underage
and 12 were of-age. Students were rewarded with extra credit for their participation in this study.

**Measures**

*Alcohol preferences and reasons for pre-gaming.* A 9-item questionnaire was developed to gather information on preferences while pre-gaming, reasons for pre-gaming (ratings were measured on a 5-point scale where 1 indicated “not important” and 5 indicated “very important”), frequency of alcohol use, and demographics such as gender, age, and year in college (See Appendix A).

*Problematic alcohol use.* The Alcohol Use Disorders Identification Test (AUDIT): Self-Report Version is used to screen for excessive drinking (Babor et al., 2001). It is a 10 item questionnaire focused on alcohol use in which participants will respond to questions that will be scored 0-4 points each (See Appendix B). The scores will be totaled and a risk level (zones 1-4) will be determined. The intervention suggested for each zone ranges from alcohol education (zone 1) to referral to specialist for diagnostic evaluation and treatment (zone 4). The AUDIT has been found to perform at an equal or higher degree of accuracy than other screening tests, including the Michigan Alcohol Screening Test and the CAGE Assessment (Clements, 1998; Hays, Merz, & Nicholas, 1995). Bohn, et al. (1995) found a strong correlation between the AUDIT and the MAST (r=.88) for both males and females. AUDIT scores have also been found to correlate well with measures of attitudes toward drinking, vulnerability to dependence, drinking consequences, and reasons for drinking (Bohn et al., 1995). Sinclair et al. (1992) found a high test-retest reliability (r=.86) in a sample of alcohol and cocaine users. A study by
Ivis et al. (2000) examined internal consistency reliability and found that changes in question ordering and wording did not affect the AUDIT scores.

Frequency of pre-gaming, reasons for pre-gaming, and the “game.” A modified alcohol timeline followback calendar (Sobell & Sobell, 1992) was developed in order to assess pre-gaming in the four weeks prior to the study (See Appendix C). High test-retest reliability of the alcohol timeline followback calendar has been found across multiple populations of drinkers (Sobell et al., 1996). Evidence for validity has came from studies using general and clinical population samples, demonstrating content, criterion, and construct validity (Sobell & Sobell, 2004). Participants in this study will be given the modified timeline followback calendar (pre-gaming TLFB) of the previous four weeks and be required to write on each date the amount of alcohol consumed while pre-gaming, the reason for pre-gaming on each occasion, and before which event (the game) students were pre-gaming. The pre-gaming TLFB will measure frequency of pre-gaming, amount consumed while pre-gaming, reasons for pre-gaming, and before which event students were pre-gaming.

Procedure

Testing sessions were completed in groups and lasted about 20 minutes each. Participants completed the consent form, the 9-item alcohol preference questionnaire, the AUDIT, and then the modified alcohol timeline follow-back calendar.

Results

Frequency of Alcohol Consumption
Data was collected from the modified timeline follow-back calendar and one-way ANOVAs were used to explore the frequency of alcohol consumption, the frequency of pre-gaming, as well as the amount consumed while pre-gaming.

The mean frequency of alcohol consumed by all participants in the prior 28 days was 4.09 episodes ($SD = 4.12$). The mean frequency of consumption for underage students was 3.50 episodes ($SD = 3.51$) and for of-age students was 5.67 episodes ($SD = 5.28$). Using an alpha level of .05, no significant difference was found in the overall frequency of students’ drinking, $F(1,42) = 2.50, p = .121, \eta^2 = .06$.

Although underage students’ AUDIT scores were slightly lower ($M = 6.62, SD = 5.12$) than the of-age students’ scores ($M = 7.00, SD = 3.54$), there were no significant differences between the two groups, $F = 0.05, p = .817$. There were also no significant differences found between the two groups for alcohol preference: beer, $F = 0.67, p = .417$, liquor, $F = 0.36, p = .551$, or wine, $F = 0.23, p = .630$ (See Table 1).

**Frequency of Pre-gaming**

Using a one-way ANOVA, the mean frequency of pre-gaming episodes of all students was 2.20 ($SD = 2.73$). The frequency for underage students was 2.03 episodes ($SD = 2.82$) and for of-age students it was 2.67 episodes ($SD = 2.54$). Therefore, 58 percent of underage students’ alcohol consumption occurred during pre-gaming, while only 47 percent of of-age students’ consumption was during pre-gaming. Using an alpha level of .05, however, no significant differences were found in number of pre-gaming episodes between the two age groups, $F (1, 42) = 0.47, p = .499, \eta^2 = .01$.

**Amount of Alcohol Consumed While Pre-gaming**
Using a one-way ANOVA, the mean average amount of alcohol consumed by all students while pre-gaming was 2.54 drinks per episode ($SD = 3.36$). The of-age students consumed slightly more alcohol per episode ($M = 2.63$, $SD = 2.56$) than the underage students ($M = 2.50$, $SD = 3.65$). Using an alpha level of .05, no significant difference was found between the two age groups for the average amount of alcohol a student consumed while pre-gaming, $F(1,42) = 0.01$, $p = .914$, $\eta^2 < .001$.

**Reasons for Pre-gaming**

To explore potential reasons for pre-gaming, a series of one-way ANOVAs were run to look at the differences between underage and of-age students on importance of the following factors: peer pressure, to lessen cost of purchasing alcohol (lessened cost), to lessen anxiety, to bond with other students (bonding), to celebrate, or to lessen risk of getting caught (lessened risk). The importance of each reason was rated on a scale from 1-5 with 5 being extremely important (See Table 2). Underage students rated celebration as the most important reason for pre-gaming ($M = 3.59$) and of-age students rated lessened cost ($M = 3.75$) as the most important reason.

Using an alpha level of .05, no significant differences were found between the two groups frequency or amounts of pre-gaming on peer pressure, $F(1,42) = 2.07$, $p = .158$, $\eta^2 = .05$, lessened anxiety, $F(1,42) = 0.03$, $p = .869$, $\eta^2 < .001$, bonding, $F(1,42) = 0.18$, $p = .672$, $\eta^2 < .001$, or celebration, $F(1,42) = 0.02$, $p = .880$, $\eta^2 < .001$. However, significant differences were found on lessened cost, $F(1,42) = 4.38$, $p = .043$, $\eta^2 = .09$, and lessened risk, $F(1,42) = 5.34$, $p = .026$, $\eta^2 = .11$.

Using a univariate analysis of variance, none of the independent variables had a significant effect on the frequency of pre-gaming by underage students: lessened cost,
F(4,32) = 0.62, p = .657, peer pressure, F(2,32) = 0.73, p = .507, lessened anxiety, 
F(3,32) = 2.29, p = .140, bonding, F(4,32) = 1.19, p = .374, lessened risk, F(4,32) = 1.30, 
p = .336, nor celebration, F(3,32) = 2.03, p = .174. Also, only one of the independent 
variables (peer pressure) had a significant effect on the average amount of alcohol 
consumed by underage students while pre-gaming, F(2,32) = 5.06, p = .030. Lessened 
cost, F(4,32) = 1.23, p = .358, lessened anxiety, F(3,32) = 2.04, p = .172, bonding, 
F(4,32) = 0.70, p = .611, lessened risk, F(4,32) = 0.80, p = .552, nor celebration, F(3,32) 
= 0.67, p = .591, had a significant effect on underage students’ amount of consumption 
while pre-gaming.

Discussion

Nearly 60 percent of underage students’ alcohol consumption occurred during 
pre-gaming, while only 47 percent of of-age students’ drinking was while pre-gaming. 
Since underage students’ most important reason for pre-gaming is due to lessened risk of 
getting caught, it is likely that they are doing the majority of their drinking while pre-
gaming due to this perception of lessened risk. However, the hypothesis that underage 
participants would pre-game more frequently was not supported. The hypothesis that 
underage participants would consume more alcohol while pre-gaming was also not 
supported. There were no significant differences between underage and of-age students in 
frequency of alcohol consumption, frequency of pre-gaming, or average amount of 
alcohol consumed while pre-gaming. These results conflict with those of previous studies 
that reported younger students consume alcohol in larger amounts and more frequently 
(Engs & Hanson, 1990; Allen, Sprenkel, & Vitale, 1994). The results also do not support 
the Reactance Theory (Clements, 1999). They also conflicted with the results of studies
that reported students’ alcohol use increases as they move up in college year (Wechsler, Dowdall, Davenport, & Castillo, 1995; Engs & Hanson, 1985, 1989; Crum, Helzer, & Anthony, 1993). However, due to the previous studies disagreement on college students’ use of alcohol, results of the current study may accurately reflect their similar rates of consumption. Also, results of the AUDIT in this study do not support the findings that alcohol use disorders are found more often in younger students.

The hypothesis that the potential reasons for pre-gaming would differ between underage and of-age students was not supported on peer pressure, lessened anxiety, bonding, or celebration. However, it was supported on the cost of alcohol (more important to of-age students) and risk of getting caught (more important to underage students). There was a significant difference between the two groups in some reasons for pre-gaming. Underage students found lessened risk of getting caught drinking to be more important, while of-age students found the lessened cost to be more important.

Also, peer pressure had a significant effect on the average amount of alcohol consumed while pre-gaming for underage students. The more important peer pressure was a motive to their pre-gaming, the more alcohol they consumed while pre-gaming. This is consistent with the previous literature on the ability of peer pressure to influence the younger students’ drinking behaviors. However, when asked to rate the importance of peer pressure on their pre-gaming, underage students rated it of the lowest importance ($M = 1.25$) when compared to the other factors (celebration, lessened cost, bonding, lessened anxiety, and lessened risk). There were not enough of-age participants to account for any variance in their pre-gaming frequency or amounts based on their reasons for pre-gaming.
In summary, the hypotheses that frequency of pre-gaming and amount of alcohol consumed while pre-gaming would differ was not supported. The reasons for pre-gaming differed on two variables: lessened risk of getting caught (more important to underage students) and lessened cost (more important to of-age students). Peer pressure had a significant effect on the amount of alcohol consumed by underage students while pre-gaming and none of the self-reported reasons for pre-gaming had a significant effect on the frequency of pre-gaming for either group.

Limitations of the study include a small sample size (especially that of the of-age group) and the accuracy of a self-report survey as a measure. Data needs to be collected from a larger sample of both age groups. There also may have been an attempt by the participants to answer the questionnaire in a socially desirable way so conducting the study in a one-on-one basis or through email may allow for more honest answers. In addition, the participants’ recall of amount and frequency of alcohol consumption may not have been completely reliable. It may have reflected a more accurate self-report of the students to have began the study on day 1 and have students record their daily alcohol use for the following period of 28 days.

Although many colleges have been providing more alcohol-free events to students, the students are still misusing alcohol. By gathering more information about the reasons for pre-gaming, college campuses may be able to become more effective at preventing problematic alcohol use. For example, if peer pressure is increasing the amount of alcohol consumed by underage students while pre-gaming, possibly decreasing the amount of peer pressure placed on those students might be able to decrease binge drinking behaviors. Also, adding or increasing the punishment for those students
pressuring other students to consume large amounts of alcohol could also deter the problematic alcohol use.

In addition, the discrepancy between peer pressure on underage students’ drinking behaviors and their own perceived ratings of peer pressure as a motivation for pre-gaming suggests that college students may not be aware of how much their drinking behaviors are influenced by their peers (and possibly not aware of how much they are affecting other students’ behaviors). By bringing this inconsistency to light, this study may lend itself to furthering the research to investigate whether or not student drinking may be lessened by showing them how much peer pressure does affect their behaviors and then encouraging them to make safer decisions for themselves. Also, using a larger sample size, future research could be done to investigate if the two age groups are influencing one another’s frequency of pre-gaming or amount of alcohol consumed while pre-gaming. For example, if peer pressure from older (of-age) students has more of an effect on younger students’ pre-gaming than peer pressure from other underage students. More research could also be conducted to determine if a decrease in pre-gaming would lead to a decrease in problematic alcohol use.
References


Table 1

*Means (Standard Deviations) for Alcohol Preference for Pre-Gaming in Underage and Of-Age Students*

<table>
<thead>
<tr>
<th>Type of Alcohol</th>
<th>Underage Students</th>
<th>Of-Age Students</th>
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<tbody>
<tr>
<td>Beer</td>
<td>2.59 (1.79)</td>
<td>3.08 (1.68)</td>
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<tr>
<td>Liquor</td>
<td>2.79 (1.86)</td>
<td>2.40 (1.51)</td>
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<tr>
<td>Wine</td>
<td>1.47 (1.33)</td>
<td>1.67 (0.78)</td>
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Table 2

*Means (Standard Deviations) for Reasons for Pre-Gaming in Underage and Of-Age Students*

<table>
<thead>
<tr>
<th>Reason for Pre-Gaming</th>
<th>Underage Students</th>
<th>Of-Age Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lessened Cost</td>
<td>2.56 (1.72)</td>
<td>3.75 (1.55)</td>
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<tr>
<td>Bonding</td>
<td>3.09 (1.79)</td>
<td>3.33 (1.23)</td>
</tr>
<tr>
<td>Lessened Risk</td>
<td>2.91 (1.69)</td>
<td>1.67 (1.23)</td>
</tr>
<tr>
<td>Peer Pressure</td>
<td>1.25 (0.95)</td>
<td>1.75 (1.22)</td>
</tr>
<tr>
<td>Lessened Anxiety</td>
<td>1.84 (1.35)</td>
<td>1.92 (1.17)</td>
</tr>
<tr>
<td>Celebration</td>
<td>3.59 (1.97)</td>
<td>3.50 (1.31)</td>
</tr>
</tbody>
</table>
Appendix A

Pre-Gaming Questionnaire

1. Age: __________

2. Gender (circle one): Male  Female

3. Year in School (circle one): Freshman  Sophomore  Junior  Senior

4. How many days have you drank alcohol in the past 4 weeks? _____________

   Pre-gaming is the practice of consuming alcohol before a social function or before going out to a bar.

5. How many days have you “pre-gamed” in the past 4 weeks? ______________

6. What is the highest # of drinks you have consumed while pre-gaming? ______

7. With whom do you most often pre-game? (circle one)

   friends (who are not roommates)  roommates (people lived with)

   alone  significant other  other

8. How much do you prefer to drink the following while pre-gaming? :

   1= not at all  2= somewhat  3= fairly  4= moderately  5= extremely (circle the # below)

   Beer :  1  2  3  4  5

   Liquor (such as whiskey, rum, or vodka):  1  2  3  4  5

   Wine:  1  2  3  4  5

9. How much of role does each of the following play in your pre-gaming?

   1= not important  2= sort of important  3= fairly important  4= important  5= extremely important  (circle the # below)

   Costs less:  1  2  3  4  5
Pre-gaming in College

Peer pressure: 1 2 3 4 5

Lessen anxiety/cope with stress: 1 2 3 4 5

Bond with friends: 1 2 3 4 5

Less risk of getting caught: 1 2 3 4 5

Celebration: 1 2 3 4 5
Appendix B

This questionnaire looks at alcohol intake and its effects. There are no right or wrong answers, just circle the answer that is correct for you.

1. How often do you have a drink containing alcohol?

   Never  Monthly  2-4 Times  2-3 Times  4 Or More
   Or Less  A Month  A Week  Times A Week

2. How many drinks containing alcohol do you have on a particular day when you are drinking?

   1 Or 2  3 Or 4  5 Or 6  7 To 9  10 Or More

3. How often do you have six or more drinks on one occasion?

   Never  Less Than Monthly  Monthly  Weekly  Daily Or Almost Daily

4. How often during the last six months have you found it difficult to get the thought of alcohol out of your mind?

   Never  Less Than Monthly  Monthly  Weekly  Daily Or Almost Daily

5. How often during the last six months have you found that you were not able to stop drinking once you had started?

   Never  Less Than Monthly  Monthly  Weekly  Daily Or Almost Daily

6. How often during the last six months have you been unable to remember what happened the night before because you had been drinking?

   Never  Less Than Monthly  Monthly  Weekly  Daily Or Almost Daily

7. How often during the last six months have you needed a first drink in the morning to get yourself going after a heavy drinking session?

   Never  Less Than Monthly  Monthly  Weekly  Daily Or Almost Daily

8. How often during the last six months have you had a feeling of guilt or remorse after drinking?
9. Have you or someone else been injured as a result of your drinking?

<table>
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<tr>
<th></th>
<th>Never</th>
<th>Less Than Monthly</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily Or Almost Daily</th>
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<tr>
<td>No</td>
<td>Yes, But Not In The Last 6 Months</td>
<td>Yes, During The Last 6 Months</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Has a relative or friend or a doctor or other health worker, been concerned about your drinking or suggested you cut down.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Less Than Monthly</th>
<th>Monthly</th>
<th>Weekly</th>
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Appendix C

Pre-gaming Timeline Followback Calendar

Participant ID: __________________________ Today’s Date: ____________

1 standard drink is equal to 12 ounces of beer, 5 oz. glass of wine, or 1.5 ounces of liquor

Instructions:

1. For each date you pre-gamed in the past 4 weeks (28 days), write how many drinks you consumed while pre-gaming and the reason for pre-gaming. If you did not pre-game on a date, leave that date blank. (Pre-gaming is the practice of consuming alcohol before attending a social function or before going out to a bar.)

2. For each date you pre-gamed, also write the corresponding letter for the best reason for pre-gaming on that date:
   a. costs less
   b. less risk of getting caught
   c. to lessen anxiety or cope with stress
   d. to bond with friends
   e. peer pressure
   f. celebration

3. Also, for each date that you pre-gamed, write what you were going to after pre-gaming (examples: a non-alcoholic event, basketball game, bar, friend’s party, etc.)

March 2009

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April 2009

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