

Running Head: DRINKING NORMS ON THE CAMPUS OF UT

Rachel Edwards

The Power to Shape Actions:

Drinking Norms on the Campus of The University of Tennessee

Rachel Edwards

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Abstract

This article explores the relationship between social norms and alcohol consumption habits of first-year college students. Through the viewpoint of the social norms theory, previous research will be reviewed that highlights the difference between misperceptions and reality, how to change misperceptions, and what social norms campaigns work. A social norms campaign was done on The University of Tennessee's campus and it will be explained and analyzed within this article as well. The results from the experiment will indicate areas of improvement and areas of interest for future studies of the subject of alcohol norms on college campuses.

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The desire to “fit in” is strong for college students, especially first-year college students. The media and entertainment industries have exposed first-year college students to a pressure that can best be defined as a pressure to conform. Add to that the pressure that peers place on these students to “be cool” and “do what everyone else is doing” and it should be no surprise that students are constantly pulled in the direction of conformity.

When this struggle occurs in the realm of alcohol use, the effects of pressure can drive students to make choices they never would have imagined they would make. Of course, every action begins with misperceptions about the norm. Students, like all other human beings, are prone to attribute their peers’ alcohol consumption habits to their dispositions instead of their environments. So in that manner, students start to develop the perception that drinking is the norm because everyone accepts it. They fail to understand that the college atmosphere contributes to drinking habits and even makes them appear more exaggerated. Students also misperceive reality on the social level. Alcohol consumption is something that often occurs in public and is later referred to in conversation. Its prominence on the social level makes it appear to be the norm. And of course, the entertainment media promotes unrealistic norms which then cause students to develop deep misperceptions that are not easily changed.

The college campus breeds these dangerous misperceptions. Students’ lives are often negatively affected by unrealistic norms that are developed and the pressure that

comes with them. If the tide is to ever change, then administrators, faculty, and students alike must be willing to understand how norms on their campuses develop and how to dispel unrealistic perceptions. By choosing to present how and when alcohol consumption really occurs, change can be brought about in the form of healthy perceptions and norms.

This topic will be explored through this research study with the goal of both explaining how to promote healthy norms on college campuses and presenting specific norms on the campus of The University of Tennessee. The theory of social norms will be addressed so it can help guide the research. Previous research will be studied in three ways: defining misperceptions and reality, understanding how to change misperceptions, and examining what really works in social norms campaigns. The social norms experiment on UT's campus will then be presented and the data will be analyzed.

Rationale

Attitudes and actions are shaped as a result of the norms that individuals hold. This especially applies to attitudes and behaviors about alcohol consumption. While people pride themselves on being individuals and making their own decisions, research has revealed that individuals have a tendency to conform to fit whoever and whatever is currently acceptable (Perkins, 2002). This is especially true on a college campus. College students try to determine exactly what they believe and how they want to act, but they still strongly desire to be accepted and liked by others. As a result, college students tend to adapt what seem to be the most accepted norms (Borsari & Carey, 2003).

I chose to study the topic of alcohol norms on a college campus because I believe that it is an area of great disparity. How much and when students think alcohol is

consumed on campus greatly affects their own actions. This is particularly the case for incoming freshmen. They have often adopted norms that have been presented through the media or entertainment world, as well as exaggerated stories told by their peers. Some of the norms presented are even realistic. For example, the headline on an above-the-fold article in the Tuesday, September 4, 2007 edition of *The Daily Beacon* reads “UT Maintains Party School Status” (Shaffer, 2007). While UT was voted on and remained a “party school,” this article can still promote unrealistic perceptions. Students might assume that the norm on UT’s campus is for everyone to drink excessively because it is a “party school.” In reality, students need to hear the actual statistics of campus drinking and know that not everyone consumes alcohol. This could help students self-analyze their own alcohol consumption and risks, causing them to adapt and follow more realistic norms.

This topic will be explored more through the lens of the social norms theory and previous research on the subject will be presented. Then an experiment done on UT’s campus with first-year, residential students will be described and analyzed. It is my goal through this research to present an understanding of how to identify norms that are present on UT’s campus and cooperatively work to help students have more realistic perceptions of what those norms are. Hopefully, along the way, students will adjust their attitudes and actions to match the more healthy norms that are presented.

Theory

The social norms theory revolves around the concept of addressing the discrepancy between one’s own views and/or behaviors and those of others. Specifically dealing with alcohol on a college campus, this theory’s purpose is to let students know

that the actual levels of alcohol use and attitudes toward drinking on campus are more moderate than most students estimate. The theory proposes using real data about alcohol-related attitudes and drinking behaviors in order to inform students. The messages through which truths about alcohol are communicated are positive messages. By highlighting the safety, responsibility, and moderation of alcohol attitudes and consumption on campus, the messages encourage students to become one of the majority who hold this norm. When the social norms theory works as it is designed, then the process of misinterpretation leading to misuse is undone. Instead, realistic perceptions lead to healthy use or no use at all (Perkins, 2002).

For the purpose of this research, the social norms theory will guide both previous research that will be discussed and research performed for this project. Social norms campaigns are built around the concept of the social norms theory, and the experiment done for this research was a social norms effort. It is important to understand the foundation of this theory in order to analyze and comprehend the research that will be presented.

Literature Review

The culture that American college students live in is inundated with alcohol – either the use of it or the perceived use of it. Even people outside of the culture hold the general perception that alcohol is the social focus of college campuses (Glider, Midyett, Mills-Novoa, Johannessen, & Collins, 2001). The perception implies that alcohol is necessary for parties and socializing with other college students. However, the perceptions of college students are the most important factors to change in an effort to promote realistic perceptions of alcohol use among college students. For the purpose of

this literature review, this topic will be explored through three subject areas. First, the difference between perceptions and reality will be detailed. Second, ways to change the perceptions will be examined. And lastly, it will be determined whether or not change really does occur through the proposed channels and methods.

Unfortunately, college students tend to overestimate how much their peers drink and how many of their peers engage in dangerous alcohol consumption (DeJong, 2002). The difference between what actually occurs and what is perceived to occur in regards to alcohol consumption is a huge gap. Students who hold those misperceptions may experience several negative consequences as a result (Glider, et al., 2001). Perhaps the most significant of these negative consequences is that students who want to fit in with their peers (whose alcohol consumption habits they have misperceptions about) will be inclined to drink more, even if it involves heavy drinking. This even occurs regardless of their personal beliefs. The action of drinking more is also supported and reinforced by those within their peer group(s) (Glider, et al., 2001).

There are numerous misperceptions that college students have about their peers' use of alcohol and alcohol consumption in general. It is common for college students to be biased in their perceptions of drinking norms and peers' alcohol use (Werch, et al., 2000). Specifically, college students experience a discrepancy between their views and/or behaviors and those of others. Most students tend to think that their peers are more permissive in personal drinking attitudes than they really are. College students also think that their peers consume more frequently and more heavily than is really the norm (Perkins, 2002).

Such misperceptions can be classified into types of norms. In an article by Borsari and Carey (2003), descriptive norms and injunctive norms are determined to exist. Descriptive norms are perceptions of others' quantity and frequency of drinking. Observations of how people consume alcohol in drinking situations are largely the basis for developing these norms (Borsari & Carey, 2003). In contrast, injunctive norms are the perceived approval of drinking. They are formed by moral rules that are perceived to be held by peers in the group. Individuals use injunctive norms to decide what behaviors are socially acceptable (Borsari & Carey, 2003). Descriptive norms are known as "the norms of 'is'" and injunctive norms are "the norms of 'ought'" (Borsari & Carey, 2003, p. 331).

Another article by Perkins (2002) also uses norms to classify misperceptions, but he chooses to address attitudinal norms and behavioral norms. Attitudinal norms are widely shared beliefs or expectations about how individuals or group members should act in various situations. Attitudinal norms are formed based on what most group members think is correct behavior or morally sound (Perkins, 2002). Behavioral norms, however, are determined by the most common behaviors in which social groups engage. Both types of norms are important because they can prove to be independent variables that affect the individual and the individual's actions (Perkins, 2002). Regardless of whether Borsari and Carey's (2003) descriptive and injunctive norm definitions or Perkins' (2002) attitudinal and behavioral norm definitions are employed, norms exist and are ultimately either wrongly perceived or realistic.

Self-other discrepancies (SODs) were identified and defined by Borsari and Carey (2003). They are essentially "the differences between drinking and/or approval of

alcohol use and estimates of drinking and/or approval of alcohol use by a reference group” (Borsari & Carey, 2003, p. 332). Influenced by five variables, SODs are a result of perceived norms. Those five variables are norm type, gender, reference group, question specificity, and campus size. Norms that are injunctive and deal with what individuals “ought” to do are likely going to result in exaggerated SODs because they are based on more subjective, indirect information or assumptions (Borsari & Carey, 2003). Perkins (2002) might say that attitudinal norms would be the norms that result in a greater SOD because beliefs or expectations that are shared by group members could be misinterpreted. A shaky foundation would thus be laid, resulting in a significant SOD. Over the years, research studies have resulted in mixed findings regarding gender differences in alcohol use but it is still likely that gender can influence norms and SODs (Borsari & Carey, 2003). For example, women have been proven to drink less than men drink. If women spend time drinking around men then they might perceive that men drink more, thus believing that the norm is to consume more alcohol than they do as women. As a result, women could perceive greater SODs than men perceive (Borsari & Carey, 2003). The reference group used in a study examining norms can significantly sway the findings of any type of research study. Proximal reference groups and distal reference groups often yield very different responses (Borsari & Carey, 2003). According to Borsari and Carey (2003), college students’ perceptions are less realistic for distal groups because they are not very familiar. On the other hand, groups in close proximity hold a high degree of familiarity and students can have more accurate perceptions of those groups’ norms. The specificity of questions asked of respondents is another variable that can greatly impact SODs (Borsari & Carey, 2003). Questions that

include specific details and ask for specific information in answers might have lower SODs because the information is not as difficult to estimate as general questions (Borsari & Carey, 2003). The final factor that Borsari and Carey (2003) highlighted as impacting the development of SODs is campus size. Before implementing an experiment that yielded results, the researchers hypothesized that SODs would be greater on larger campuses. In fact, the findings revealed that the larger the campus, the smaller the SODs perceived by college students (Borsari & Carey, 2003). This was a result of students on larger campuses recognizing that what they know of their friends might not apply to the entire campus since such a large number of students comprise the campus. On smaller campuses, however, students are more likely to think that their friends represent the entire campus' beliefs and actions. As a result, students on small campuses will think that everyone drinks more than them. If they did not adopt that way of thinking then they would have to place themselves in the category of "heavy drinkers" or "students who drink *too* much." This would prove to be uncomfortable for students, so instead they choose to believe that everyone else has an even higher level of alcohol consumption (Borsari & Carey, 2003).

Environment is a significant factor that can contribute to both the perception of SODs and the understanding of current social norms in general. The size of the campus has already been addressed (Borsari & Carey, 2003), but everything from who students hang out with to their group memberships can affect the formation of norms (Wechsler, et al., 2003). College students who did not drink before attending college were most affected by variables like their affiliations and surrounding environments. Wechsler et al. (2003) found that "membership in a fraternity or sorority, belief that most friends binge

drink, drinking to 'fit in,' easy access to alcohol through social affiliation, low-cost alcohol, and attending a college with a high rate of binge drinking were all independently associated with first-year students taking up binge drinking" (p. 4). Students who were found to be more involved in productive college activities, such as volunteer service, were not as likely to be binge drinkers (Wechsler, et al., 2003).

In response to such findings regarding the impact of students' environments, some colleges have taken coalition-based approaches and tried to "bring campuses and communities together to change the conditions that promote heavy alcohol consumption prevalent in many campus community environments" (Wechsler, et. al, 2003, p. 7). In order for these attempts to be successful, however, the students themselves often play a role. Their attitudes and degree of acceptance of the approach can determine how effective the coalition efforts are (Wechsler, et al., 2003). In a different manner, some campuses are attempting to make students aware of the negative impacts of alcohol on their own environments so the students will be the catalyst for change, not the college nor the community (DeJong, 2002). Two campaigns launched at the University of Arkansas at Little Rock and the University of North Carolina at Chapel Hill that were reviewed by DeJong (2002) targeted students who were tired of having their experience, education, and safety compromised by the high-risk drinking of others. The goal was to raise awareness of the situation, thus encouraging students to channel their frustration into advocacy. By seeking to create a climate of support for change, these campaigns acknowledged the strong impact that environment has on affecting social norms (DeJong, 2002).

Knowing that most college students hold unrealistic perceptions, it is important to understand what is realistic. The NIAAA (2007) reported that 70% of college students consumed some amount of alcohol in the past month. It was also determined that rates of excessive alcohol use are highest at colleges and universities where Greek systems dominate and where sports teams have a prominent role (NIAAA, 2007). Specifically at The University of Tennessee, however, the Safety, Environment, and Education Center (S.E.E. Center) found in a 2007 survey that 74% of UT students reported not binge drinking in the past two weeks. The S.E.E. Center also reported that only 22% of students reported drinking five or more drinks (binge drinking) three or more times in the past two weeks. While statistics like these are important to understand and can be used in efforts to curb alcohol consumption on college campuses, it is important to recognize that group norms are the most powerful variables when it comes to changing attitudes and behaviors regarding alcohol consumption (Perkins, 2002). Research has proven time and time again that people have a strong tendency to conform to group patterns. As a result, group norms that comprise attitudes, expectations, and behaviors within groups can determine individual group member's actions and behaviors as well (Perkins, 2002). Group norms are, therefore, potential elements of control. If harnessed in a positive manner, norms can drive students to positive and healthy attitudes and actions regarding alcohol consumption (Perkins, 2002). Today, this is often being done through social norms campaigns. These types of campaigns will be addressed later in this review.

With an understanding of how perceptions and norms can be either unrealistic or realistic, it is necessary to understand the negative consequences of misperceptions. Drinking norms that are actually present can rise as a result of unrealistic norms (Perkins,

2002). The formation of such perceptions is thus caught in a vicious cycle as the presence of misperceptions discourages opposition to heavy drinking and intervention in situations when peers engage in alcohol abuse. Perkins (2002) also found that when students who do engage in extreme drinking behaviors believe they are in the majority due to the misperceptions of norms, they are encouraged in those unhealthy behaviors.

Now that the problem that misperceptions and unrealistic drinking norms pose has been made clear, the issue is changing the perceptions. Models of the behavior change process indicate that change occurs when people go through the following steps: awareness, knowledge and beliefs, behavioral skills, self-efficacy, and receiving support for sustaining change (DeJong, 2002). Immediate behavior change is usually unrealistic so the steps in this model provide a plan for change, even though it will likely occur over a long period of time. Awareness entails the need to raise the consciousness of the problem in the minds of individuals and groups. A media campaign can be used to do this and, therefore, prompt individuals to assess the risks they take and consider taking action to the contrary (DeJong, 2002). Knowledge and beliefs refer to how “the campaign must bring about a change in beliefs and attitudes about the behavior being promoted” (DeJong, 2002, p. 186). Next, behavioral skills must be developed because behavior change often requires change in skills as well (DeJong, 2002). And self-efficacy is vital because individuals must have the “conviction that (they) can execute a particular behavior” (DeJong, 2002, p. 186). Finally, there must be a significant amount of support in order for individuals to sustain the behavior change in which they have

participated. They must know how to monitor their behavior, use self-reinforcement strategies, and cope with competing desires or behaviors if they arise (DeJong, 2002).

With an understanding of the model of behavior change, specific steps can be planned to instigate change in regards to alcohol consumption norms and perceptions. Within the college culture, four groups can play significant roles in moving college students through the steps of behavior change. Parents, faculty, resident advisors, and peer norms all have the power to affect students' perceptions and accepted norms (Perkins, 2002). By the time students reach college, parents have little direct impact on the values and behaviors of college students, but there is a connection between problematic drinking behaviors of parents and students. There is also evidence of a small lasting effect of parental norms on students' drinking as students internalize parental attitudes and imitate their behaviors (Perkins, 2002). Perkins (2002) determined that faculty will only be able to impart knowledge about alcohol consumption to students unless faculty "*collectively* encourage each other to intervene, making the practice a community standard" (p. 166). Unfortunately, resident advisors (RAs) often promote the norm of keeping alcohol behind closed doors and keeping noise levels down instead of informing residents of real statistics that promote healthy norms. Perkins (2002) proposed two ways to improve prevention through RAs. First, RAs should be trained to talk accurately about norms rather than disseminate misperceptions and false stereotypes. Second, RAs should work with residents to identify and unify support for residential policies regarding alcohol. This will combat the fact that most residents perceive there to be less support within the residence hall for residential alcohol policies than there really is (Perkins, 2002).

Glider et al. (2001) reviews a model used at Northern Illinois University (NIU) that was designed to reduce binge drinking on campus. It informed students of actual alcohol rates on campus while using the “P.I.E.” philosophy in creating a media campaign. It was designed around the following features (Glider, et al., 2001):

P – messages should be positive

I – messages should be inclusive

E – messages should be empowering

The model aimed at encouraging students to become part of the “majority.” Students were informed that the majority does not drink heavily, thus encouraging those who are already a part of the majority and giving guidance to those who do drink heavily.

Campaigns like the one done at NIU are social norms efforts. The social norms approach is all about communicating the truth about peer norms in terms of what the majority of students believe and do when it comes to consuming alcohol (Perkins, 2002). The message is put out in a positive manner then, and social norms campaigns promote safety, responsibility, and moderation. The goal is for students to start to believe and act according to accurately perceived norms. As a result, the actual norms become even more moderate, reversing “the process of misperception leading to misuse” (Perkins, 2002, p. 168).

Another significant way to move misperceived social norms in the direction of realistic social norms is through the use of repetition. Moderate repetition has been shown to increase analytical processing (Claypool, Mackie, Garcia-Marques, McIntosh, & Ashton, 2004). This means that individuals who are subjected to message repetition have an increased ability to fully realize the meaning of the message and grasp the

interconnectedness and implications of the arguments being presented (Claypool, et al., 2004). Glider et al. (2001) reviewed a social norms campaign that used the element of message repetition. The social marketing consultant had indicated that three media exposures per week at the beginning of the campaign, tapering off to at least one per week, is ideal for impacting the targeted culture. Despite limitations that kept the researchers from fulfilling the consultant's advice, the regular repetition of at least one advertisement per week was shown to have an impact on students (Glider, et al., 2001). The persuasiveness of the message has been found to be increased when message repetition is high (Claypool, et al., 2004), making repetition an element to include in attempts to change perceptions of social norms.

With such a wide range of actions that can be taken to fight misperceptions and unrealistic norms, there are numerous studies that look at the effectiveness of such campaigns and efforts. The social norms campaign is central to this literature review, therefore, making its effectiveness most important in this research. In general, research studies confirm the impact of the social norms approach. The approach is simple, cost efficient, and effective (Perkins, 2002). It causes norms to be more accurately perceived and college students learn to adhere to those norms. This causes the actual norms to become even more moderate, promoting more healthy actions when it comes to alcohol consumption (Perkins, 2002).

It should be noted, however, that limitations of social norms studies have been established as well. In 2003, nearly half of administrators at universities reported using social norms campaigns as prevention strategies to address alcohol use among students (Wechsler, et al., 2003). As the effects of those campaigns were studied, however, some

of the campuses were not found to have a significant decrease in any measure of drinking. This finding was puzzling, but it was eventually contributed to the fact that “colleges implementing social norms campaigns were less likely to implement policies that restricted alcohol on campus” (Wechsler, et al., 2003, p. 7). It is important that this danger of social norms campaigns be avoided. The effects of the campaign can be negated if it is not coupled with policy prevention methods as well.

Another important factor to manage when implementing a social norms campaign is that of eliciting defensive reactions to social norms messages. Werch (2000) reviewed several studies of social norms campaigns that were confounded by the way that prevention messages stirred up defensive responses among students. Some students were in defensive denial regarding their alcohol consumption habits because the messages caused them to focus on their drinking too much (Werch, et al., 2000). This is a fine line for researchers to understand and campaigners to walk.

Knowing the difference between perceptions and reality in regards to alcohol consumption, the possible avenues of changing unrealistic perceptions, and the effectiveness of social norms campaigns empowers researchers to understand and promote effective social norm efforts. This knowledge and ability is invaluable in a college culture that has been proven to react positively to social norms campaigns done correctly. But, as the reviewed literature has revealed, the balance between an effective social norms campaign and a dead, or even backfiring, social norms campaign is tough to strike.

Hypotheses

H₁: Students exposed to messages promoting responsible alcohol consumption during the first 5-6 weeks of their time at UT will have more realistic perceptions of responsible drinking than students not exposed to such messages.

H₂: Students exposed to messages with statistics of the average UT student's alcohol consumption and drinking habits will have more realistic perceptions of the alcohol consumption culture at UT than students not exposed to such messages.

Methods

In order to determine how students' perceptions affect their behaviors, an experiment was done through the use of a survey.

Participants

Participants were first-year college students at The University of Tennessee at Knoxville. All of the participants lived in residence halls located on the campus of UT. There were six different groups of residents involved in the experiment. The three control groups: female residents in South Carrick residence hall, male residents in North Carrick residence hall, and female residents in Morrill residence hall. The three experimental groups: female residents in South Carrick residence hall, male residents in North Carrick residence hall, and male residents in Morrill residence hall.

Measures

The measure distributed to participants was made up of 19 questions (Appendix D). There was a informed consent on the first page. At the top of the second page, there were directions which explained that participants were to circle the answer to each question which was appropriate. The marked whether they (1) completely agree, (2)

agree, (3) are unsure, (4) disagree, or (5) completely disagree. Question 18 was a demographic question. Question 18 asked both biological sex and academic year classification. Question 19 asked participants to indicate whether their peers did or did not drink. Questions 1-17 were all part of the scale designed to measure three different factors. Questions 1-3 and 10-12 measured the sources of information that college students use to build information about the topic of alcohol consumption on campus. Questions 4-7 and 13-16 measured the perceptions that participants have of students and campus life at UT. And questions 8, 9, and 17 measured students' understandings of what binge drinking is.

Procedures

The surveys (Appendix D) were first distributed between August 23-August 27 at each floor's first floor meeting of the year. The resident assistant (RA) on each floor was responsible for distributing and then collecting the surveys. The residents were not given a time limit to complete the surveys, except that they were to be turned in by the end of the approximately 20 minute meeting.

Approximately one week after the surveys were administered two different fliers (see Appendix A and B) were posted in the elevator lobbies of the experimental floors. Two days following that, a small flier (see Appendix C) was placed in each one of the residents' mailboxes who lived on an experimental floor.

During the week of October 2 – October 7, the survey was given again to the same groups of residents, both control and experimental. Once again, it was administered during a floor meeting by the RAs. The data was then collected and analyzed with the first round of data.

Results

There were three different scales (or factors being measured) within the large scale on the surveys. The UT perception scale, the sources of information scale, and the binge drinking scale. The most realistic score on the UT perception scale was 40 while the least realistic score was 8. The score indicating the highest agreement on the sources of information scale was 6, and the score indicating the least agreement was 30. The score indicating the most realistic understanding of binge drinking was 3 while the score indicating the most misunderstanding of binge drinking was 15.

For participants from the control groups during Round I, the mean of the UT perception scores was 24.88, the mean of the sources scores was 18.81, and the mean of the binge scores was 6.37. For participants from the experimental groups during Round I, the mean of the UT perception scores was 24.66, the mean of the sources scores was 18.70, and the mean of the binge scores was 6.74.

For participants from the control groups during Round II, the mean of the UT perception scores was 24.24, the mean of the sources scores was 18.84, and the mean of the binge scores was 6.53. For participants from the experimental groups during Round II, the mean of the UT perception scores was 23.08, the mean of the sources scores was 20.10, and the mean of the binge scores was 6.92.

An independent samples t-test was run to compare the control and experimental groups in order to analyze the data. The t-test produced the following results:

Round I: UT perceptions $t(111) = .311, p > .05$

Round I: sources $t(111) = .207, p > .05$

Round I: binge $t(111) = -1.05, p > .05$

Round II: UT perceptions $t(121) = 1.39, p > .05$

Round II: sources $t(121) = -2.08, p < .05$

Round II: binge $t(121) = -.901, p > .05$

A reliability analysis scale was run with the result of $\alpha = .404$. Therefore, the scale was not reliable.

In addition to doing the analyses necessary to test the hypotheses, two more independent samples t-tests were run in light of what previous research (see literature review) has discovered. A t-test was run to determine if respondents' answered differently and had different norms based on whether their peers did or did not drink. In Round I, respondents whose peers did not drink has more realistic perceptions of the norm, although only the differences about UT perceptions and binge drinking were statistically significant (UT per: $t(111) = -3.45, p < .05$; sources: $t(111) = 1.86, p > .05$; binge: $t(111) = 2.76, p < .05$). The results were the same for Round II with students whose peers did not drink having more realistic norms that were statistically significant, except for the credibility of sources of information (UT per: $t(121) = -4.13, p < .05$; sources: $t(121) = -1.28, p > .05$; binge: $t(121) = 2.87, p < .05$). The implications of these results will be discussed in the future research section.

Discussion

Overall, the hypotheses of this study were not supported. None of the three factors measured (UT perceptions, sources of information, and binge drinking) were statistically significant in the correct direction. In fact, after the experimental group was exposed to the social norms messages, members of the experimental group were more skeptical of the credibility of sources of information than members of the control group

and this was the only statistically significant finding. However, the experimental group members of Round II did have more a more realistic mean answer for the factors of both UT perceptions and binge drinking. This indicates that with a larger sample size, there is a possibility that these results would have become statistically significant. If this really did occur then the results from this study would be a Type II error, a false negative. This will be discussed in the limitations section, however.

It is not unusual for social norms campaigns not to be effective (Wechsler, et al., 2003; Werch, et al., 2000), but it is important to understand why they are not effective. This social norms effort in particular could have been compromised by numerous factors. Anything from sample size to message channel to time could have contributed to weak results and the lack of support for they hypotheses. Those limitations will be discussed next.

Limitations

Clearly, many limitations played a role in this research experiment. Perhaps one of the most obvious is that of the subject type. First-year students are under a great deal of pressure to “fit in” and ultimately conform to others’ attitudes and actions. Therefore, although the survey instructions and the survey administer assured anonymity of responses, participants very likely could have exaggerated their answers on the surveys. There was also no motivation to participate in the study and take it seriously. Although the students had to be sitting in the same place while they took the survey, their reason for being there was to attend the floor meeting – not to take the survey. This could have contributed to an apathetic attempt of answering the questions, or possibly an attempt to

answer the questions as quickly as possible. All of these factors could have confounded the results from this study.

Of course, sample size is an obvious limitation that certainly had an effect on the results. To be limited to approximately 60 people in each control or experimental group for Round I or Round II is an issue that confounded the results. Some of the results indicated movement in the hypothesized direction (Round II UT perceptions and binge drinking scores) but it is impossible to know if the results would have been statistically significant had the sample size been larger. Also, to ensure a better sample of the population it would have been beneficial to increase the number of residence halls studied from three. UT's campus has thirteen residence halls so surveying first-year students in as many of those residence halls as possible would have been beneficial to the study's results.

The results from the experimental groups might have been more significant if the media campaign was done differently. The fliers were posted in the elevator lobbies of each floor. The elevator lobbies are where all information is posted in the form of fliers and signs so residents could be calloused to the information that is presented in that manner. Smaller fliers were also distributed through the residents' mailboxes, but there is no guarantee that residents checked their mailboxes and received the fliers. Or, they might have thrown them away without even looking at the fliers.

Another possible limitation that could have affected the impact of the social norms media campaign is the number of messages that students take in every day. The number of messages going in the other direction of the messages presented in the social norms campaign might negate the social norms messages. For example, there might be

17,000 messages presented to students each day that say excessive drinking is acceptable, thus promoting unrealistic norms on campus. That huge number of messages might be impossible to counteract with only a small number of messages telling students that such norms are exaggerated. There was no way to determine how many messages were at play in this experiment due to limited resources, but it would have proved very helpful.

Another limitation of this study was that the messages presented to students were not repeated. As previously addressed in the literature review, repetition increases analytical processing, often causing students to be more likely to adopt the realistic norms presented in the repeated messages (Claypool, et al., 2004). Repetition would have also been helpful in combating the way that messages posted in the elevator lobby were not impactful. It would have been particularly beneficial had the messages been repeated in a variety of ways through different channels.

Future Research

With the large number of limitations of this study it is evident that there would be many changes to make for future research studies on this topic. It is important to know, however, that any kind of campus prevention program starts off at a disadvantage. There are numerous pre-intervention messages, experiences, and actions that confound the efforts of any interventions that occur while students are on campus. To allow for this, perhaps social norms campaigners should focus more attention on designing the campaigns in a different manner. Presley et al. (2002) argued for the tailoring of social norms campaigns depending on those pre-intervention factors. Looking at the results of this study, such an argument seems to be well reasoned and hold great potential for future research studies.

Based on the thought that pre-intervention and even pre-college factors are strongly forming students' perceptions and determining the norms they hold, it would be worthwhile to try to reach students with social norms messages before they even get to campus. If first-year students receive messages the summer before they attend the university then the impact of the social norms messages might be stronger. As a result, students might get to campus with more realistic norms than if they only relied on peers and entertainment media to set those norms.

Perhaps one of the most interesting findings from this study supports previous research that has found peers to be one of the most important factors in determining students' perceptions. In the results section of this paper, data was analyzed that revealed that students whose peers do not drink are more likely to have realistic perceptions of actual drinking norms on campus than students whose peers do drink. This holds enormous implications for future research. If peers' actions hold such a power over the norms that students perceive to be reality then perhaps future research studies should focus on the element of peers, rather than attacking the issue in a broad manner. While social norms campaigns have done this, it can be done more specifically by gathering data from specific target groups and tailoring campaigns to fit certain groups. For example, researchers could gather data from members of the Greek community and then tailor a social norms campaign for Greek individuals using data that only refers to their peers, other Greeks. Or data could be gathered from a specific residence hall and a campaign could be designed around data that reveals what residents of that specific residence hall think about alcohol use. These campaigns might prove to be more

effective because students' actions have been shown to be directly linked to their peers' perceptions and actions.

The social norms approach is a valuable approach that has a great amount of potential for causing college students to understand what norms are really present in their culture. It is an approach that must be fine-tuned, however, to truly make an impact on the entire college culture. Through detailed planning and a lot of effort, social norms campaigns can encourage moderate norms and safe alcohol consumption habits.

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Appendix A

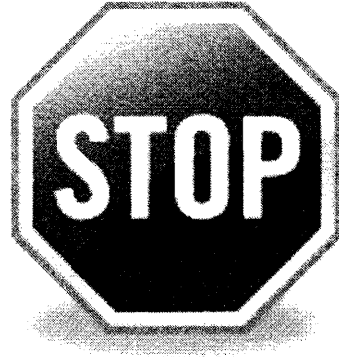


binge drinking...
women = 4 or more drinks
men = 5 or more drinks

**Did you know that 3 out of 4 of your peers
report not binge drinking in the past 2
weeks?**

Appendix B

What does it look like to stop?



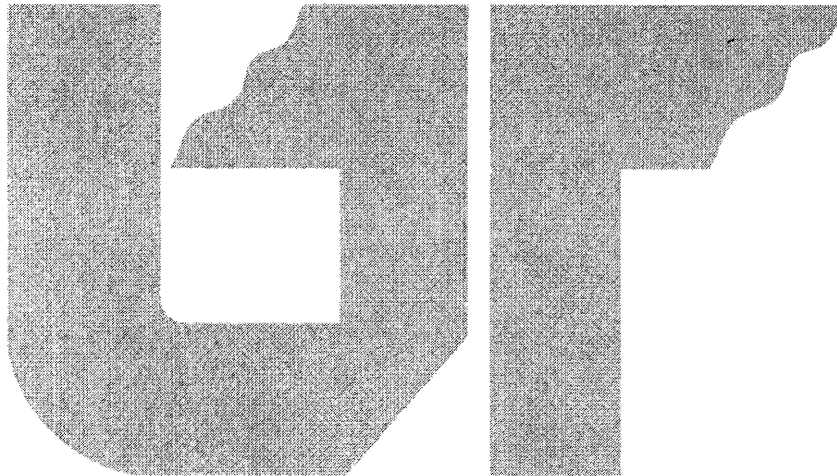
**80% of UT students report having
four or fewer drinks
when they go out.**

They know when to stop.

Do you?

Information based on survey data collected by the Safety, Environment, & Education Committee (2006).

Appendix C

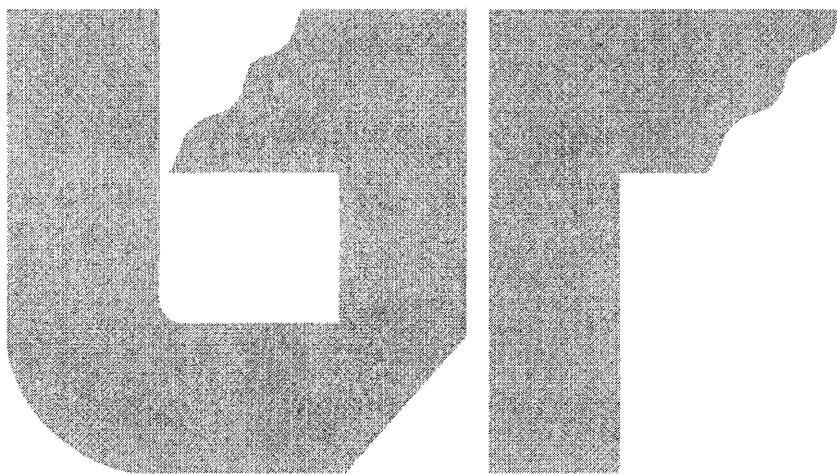


Think everyone drinks?

**1 out of 3 UT students report not drinking
alcohol within the past year.**

Think again.

Information based on survey data collected by the Safety, Environment, & Education
Committee (2006).



Think everyone drinks?

**1 out of 3 UT students report not drinking
alcohol within the past year.**

Think again.

Information based on survey data collected by the Safety, Environment, & Education

Appendix D

Statement of Willingness to Participate

This project focuses on college students' perceptions of alcohol consumption. You will be asked to share your views with the researcher from the University of Tennessee. My interest in this project is to determine how students' perceive alcohol consumption.

All data collected will be maintained in a confidential manner. Your responses during the project will only be presented in aggregate or summary form. Your identity will never be connected with the data. Your responses will not be released to any individual outside of the research team.

Your participation in the project is voluntary. There is no penalty if you choose not to participate or withdraw from the study. You are free not to answer any question that makes you uncomfortable. Your participation in the study indicates that all of your questions concerning the procedures of project have been answered to your satisfaction. Participation also indicates that you agree that there are not potential risks, liabilities, or discomforts associated with participation in this study.

If you have any questions or concerns about the project, please contact Rachel Edwards: redwar12@utk.edu.

Please circle the degree to which you agree with the statement by marking whether you (1) completely agree, (2) agree, (3) are unsure, (4) disagree, or (5) completely disagree. Many of the statements are similar to other statements. Do not be concerned about this. Work quickly; just record your first impression.

1. Television and movies present college students' use of alcohol as it really is in life.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

2. I know what college parties are like because my friends have told me.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

3. The statistics on posters and other media that state how much college students drink are accurate.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

4. UT is more of a "party school" than other universities of a similar size.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

5. The majority of UT students drink alcohol.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

6. UT students who do not drink alcohol are missing out on the college experience.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

7. The majority of UT students drink at least five drinks when they go out.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

8. When women have four drinks or men have five drinks it is considered binge drinking.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

9. Binge drinking is dangerous.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

10. College students portrayed on television and in movies drink more alcohol than real college students.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

11. My friends try to impress me with exaggerated stories about drinking at college parties.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

12. Posters and other media with statistics about college students' drinking habits are not always accurate.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

13. When people call UT a "party school" they are just exaggerating.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

14. The majority of UT students do not drink alcohol.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

15. UT students who do not drink can have the same college experience as UT students who do drink.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

16. The majority of UT students have four drinks or less when they go out.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

17. Binge drinking is not dangerous.

completely agree	agree	unsure	disagree	completely disagree
1	2	3	4	5

18. Please circle the terms that apply:

Female

Male

Freshman

Non-Freshman

19. Please circle your answer:

My peers **do** / **do not** drink.