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**COLLEGE STUDENT PERCEPTIONS ON  
CAMPUS ALCOHOL POLICIES AND  
CONSUMPTION PATTERNS\***

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**ABSTRACT**

Environmental strategies for colleges and universities to reduce alcohol consumption among their students include the development and enforcement of campus alcohol policies. This study examines students' knowledge and attitudes toward campus alcohol policies and how they relate to alcohol consumption and alcohol social norms. A sample of 422 freshman students was surveyed during their first month at a 4-year public college. Findings indicated that the majority of students (89%) were aware of campus policies, yet of those who were aware, less than half (44%) were accepting of these campus rules and regulations. In addition, the majority (79%) of students drank at social events, despite this behavior being in direct violation of campus alcohol policies. However, those who supported campus rules consumed

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significantly less alcohol at social events than those who opposed or had no opinion of the rules. Also, those who supported the rules perceived that their peers and students in general consumed significantly less alcohol at social events than those who were opposed or had no opinion. This outcome supports the premise established by several theories of behavior change including the theory of planned behavior, which state that behavior is influenced less by knowledge than by attitude and intention.

## INTRODUCTION

Alcohol use among college students in the United States continues to be a major public health problem. Between the ages of 18 and 22, those who are enrolled full-time in college are more likely than those not enrolled full-time to use alcohol in the past month, binge drink, and drink heavily (Substance Abuse and Mental Health Services Administration, 2010). Johnston, O'Malley, Bachman, and Schulenberg (2011a) identified the 2-decade-old established higher risk for bingeing by college students compared to non-college peers with 37% of college students reporting binge drinking in the past 2 weeks in 2010, reportedly almost the same rate as in 1993. Slightly more than half (51.9%) of all Americans over the age of 12 (approximately 130.6 million people) reported consuming alcohol in 2009, with 10.4 million of them between the ages of 12 and 20 (Substance Abuse and Mental Health Services Administration, 2010) even though in the United States, the national age for the legal purchase of alcoholic drinks is 21 years, stemming from the National Minimum Drinking Age Act of 1984 (U.S. Department of Transportation, 1999). The percentage of 8th, 10th, and 12th graders who reported in 2010 consuming alcohol in the past 30 days was 13.8%, 28.9%, and 41.2% respectively (Johnston, O'Malley, Bachman, & Schulenberg, 2011b). The mean age of alcohol use among recent initiates, those who had used alcohol for the first time within the past 12 months, aged 12 to 49 in the United States was 16.9 years (Substance Abuse and Mental Health Services Administration, 2010), indicating that alcohol use has often begun before students arrive on college campuses. Many already have experience with risky drinking behavior as 18.1% of Americans between the ages of 12 and 20 reported binge drinking (five or more alcoholic drinks on the same occasion) and 5.4% reported heavy drinking (five or more drinks on the same occasion on each of 5 or more days in the past 30 days) (Substance Abuse and Mental Health Services Administration, 2010). Although, since 2002, there has been a slight decreasing trend in current, binge, and heavy alcohol use among underage persons, this trend has recently stabilized (Substance Abuse and Mental Health Services Administration, 2010), demonstrating that targeted efforts toward this age group to reduce alcohol use need to continue.

Environmental strategies for colleges and universities to reduce alcohol consumption among their students include developing and enforcing campus alcohol

policies (DeJong & Langford, 2002; Neighbors, Walters, Lee, Vader, Vehige, Szigethy, et al., 2007). Colleges and universities are mandated by the Drug Free Schools and Communities Act Amendments of 1989 to put into practice a program to prevent the use of illicit drugs and abuse of alcohol by students (DeJong & Langford, 2002; Lipperman-Kreda, Grube, & Paschall, 2010; Neighbors et al., 2007). This program requires that colleges and universities distribute information to students regarding their school's specific alcohol policies. College alcohol policies reflect federal and state laws prohibiting the consumption of alcohol by students under the legal drinking age. Failure to comply with school policies results in multiple consequences ranging from warnings to expulsion. However, college deterrent policies (P.L. 101-226, 1989) have been found to be limited in their outreach (Toomey & Wagenaar, 2002). Despite policies, laws, academic and social consequences, and availability of prevention programs, persistent underage excessive alcohol use and alcohol-related behaviors are a major national concern (Faden & Baskin, 2002; Wechsler, Lee, Gledhill-Hoyt, & Nelson, 2001; Wechsler, Lee, Nelson, & Kuo, 2002).

Reducing alcohol availability through policy change is believed to have an effect on student drinking rates and related problems (Shalala, 1995; Toomey, Lenk, & Wagenaar, 2007). Effective strategies include limiting student access to alcohol through prohibition of kegs, providing alcohol free residence halls, and limiting any alcohol use on the university campus (Toomey et al., 2007). In a nationally representative sample of students attending U.S. colleges, it was found that students who attend schools with alcohol policies banning alcohol use are 30% less likely to engage in binge drinking, less likely to use alcohol, and less likely to experience the secondhand effects of drinking (Wechsler et al., 2001). Drinking among adolescents and underage students has been found to be associated with a number of social, economic, and health consequences based on the high-risk behaviors that often accompany heavy drinking (Spoth, Greenberg, & Turrisi, 2008). Some of the high-risk behaviors that adolescents partake in while under the influence are drunk driving, unprotected sex, and violence. These behaviors result in higher rates of unintentional injuries and death, sexual transmitted diseases and infections, delinquency, and low academic achievement (Spoth, Greenberg, & Turrisi, 2009). It is estimated that the consequences related to underage drinking have an economic toll of over \$62 billion (Spoth et al., 2008).

Not only having alcohol policies in place, but increasing college students' awareness of institutional alcohol policies and acceptance of these policies, may further decrease alcohol use rates among students. Rhodes, Singleton, McMillan, and Perrino (2005) found that among male students at historically black colleges and universities, awareness of the alcohol policies was significantly related to reduced binge drinking. Determinants that increase student knowledge of institutional alcohol policies are access to the existing policies and laws and consistent messages regarding these policies. Students need physical access to policies (hard or electronic copy) as well as an ability to comprehend the alcohol policy

as written. Factors surrounding student acceptance of policies, and compliance with those policies, should be assessed after review and evaluation of these areas. Faden and Baskin (2002) evaluated 52 national universities and found that, in general, alcohol policies were difficult to find and did not provide complete information about the school's alcohol policy. When policies are available to students and college enforcement of these policies are consistent, students living on campus reported lower heavy drinking rates than when college enforcement of these policies is not as strict (Knight, Harris, Sherritt, Kelley, Van Hook, & Wechsler, 2003). In addition, Ringwalt, Paschall, and Gitelman (2011) found, when examining 48 alcohol prevention strategies under six domains on 22 college campuses, that the strongest association to students' alcohol-related outcomes (30-day alcohol use, 30-day binge drinking, average number of drinks per occasion, and alcohol problems index) were under the policy and enforcement domain, indicating that strategies focusing on this domain may be most important. One such strategy mentioned was providing new students and their parents with information about alcohol policies and penalties.

However, even when alcohol policies are provided, conflicting messages sent by schools regarding these policies is often reported. Examples provided by Mitchell, Toomey, and Erickson (2005) include colleges who had written policies against underage drinking on campus, yet did not prohibit alcohol use on campus, and schools with Greek organizations, fraternities, and sororities, having no policies prohibiting alcohol at Greek functions despite the knowledge that this group represents a high-risk category of college drinkers (Mitchell et al., 2005). High risk groups on college campuses represent important groups within the student population in terms of alcohol consumption. Incoming freshman drink more and accrue more alcohol-related offences than upper classmen (Lewis, Neighbors, Oster-Aaland, Kirkeby, & Larimer, 2007). It has also been found that those freshmen that drank during high school increase both their frequency and quantity of alcohol once at college (Lewis et al., 2007). Along with incoming freshmen and members of Greek organizations, college athletes are also considered high risk for similar reasons as seen with incoming freshman and Greek organization members (Martens, Labrie, Hummer, & Pedersen, 2008).

In addition to having comprehensive alcohol policies to reduce alcohol availability and alcohol use, examining attitudes toward these alcohol policies may further assist understanding of alcohol use behavior among students. The theory of planned behavior (TPB) explores how intentions to engage in risk behaviors are influenced by multiple factors, including peers, which once analyzed, can be used to predict repetition of those risk behaviors (Ajzen, 1985, 1991). The predictive validity of TPB with alcohol-related behavior has been demonstrated in multiple national and international studies, linking intention (cognitive choice) to behavior explaining up to 60% of variance within the significant predictor variables (Armitage & Conner, 2001; Elliott & Armitage, 2006; Norman, Armitage, & Quigley, 2007; Sheeran, Trafimow, & Armitage, 2003). The theory

of planned behavior explores how intentions precede behaviors, and attitude toward the behavior, degree of social acceptance (social norm), and perceived behavioral control precedes intention (Ajzen, 1985, 1991; Ajzen & Madden, 1986). Consideration must be given in any specific sample to the possible moderating effects of demographics of the population (Armitage, Norman, & Conner, 2002). Within the context of behavioral control lies the decisional constructs of access, barriers, and benefits; therefore, understanding and acceptance of university policy related to alcohol can determine a student's perception of access, barriers, and benefits of drinking or abstaining.

Bentler and Spekart (1979) identify subjective norm as "a measure of the influence of the social environment on behavior" that corresponds more to a belief one might have about the social norms, rather than the actual real environmental norms (p. 453). In addition to perceived social norms and the school's attitude toward and enforcement of alcohol policies, is the students' perceived behavioral control over drinking. Even though parents still have an influence on college students' drinking patterns (Wood, Read, Mitchell, & Brand, 2004), freshmen students in particular are experiencing the absence of daily parental guidance and assuming increased self-determined behaviors related to alcohol use. Multiple studies have cited the effect of these social norms, school policies and enforcement, and perceived behavioral control on freshmen alcohol consumption (Borsari, Murphy, & Barnett, 2007; Grekin & Sher, 2006; White, McMorris, Catalano, Fleming, Haggerty, & Abbott, 2006).

This study extends the literature by investigating the combination of knowledge about and attitudes toward campus alcohol policies and its relation to alcohol drinking behavior and perceived drinking behaviors of others. The role of the combination of knowledge attitude toward alcohol policies and its relation with drinking behavior and perceived peer and other student drinking norms has not been reported in the literature.

## METHOD

After receiving approval from the university Institutional Review Board, seminar instructors conducting a new student seminar at a northeastern public university were invited to participate in the study. The new student seminar is a one-credit, mandatory general education requirements for all freshmen students. Topics that are covered in this seminar include time management, critical thinking, study skills, values clarification, classroom etiquette, and test taking strategies. Each of the instructors received an explanation about the study, and the request to allow a survey to be taken at the end of the new student seminar classes. Three instructors who were responsible for seven of the new student seminars responded to the invitation.

The new student seminars took place during first month of the school semester in on-campus classrooms. At the end of the seminar, staff from a non-academic

department arrived to administer the paper and pencil survey to students who volunteered to participate. The instructors left the room, after which an explanation of the study was provided to the students. Prior to administration, students were told that participation was strictly voluntary and anonymity promised. Oral consent was provided and anyone who chose not to participate was invited to leave the room. All students in the seven classes chose to participate in the survey. Four hundred and twenty-two freshmen students (approximately 25% of freshman class) participated in the written survey.

### **Instrument**

The Campus Survey of Alcohol and Other Drug Norms is an anonymous, self-report questionnaire designed to measure students' alcohol and other drug use, attitudes toward campus policies, as well as their perception of campus norms and substance use among peers and other students. The questionnaire is a four-page instrument which was developed in 1997 by the CORE Institute (CORE Institute, 2007). Survey instrument contained measures of quantity and frequency of drinking for self and college students in general as well as knowledge and attitudes toward campus rules and regulations. For quantity, participants were asked how many drinks they typically consumed per drinking occasion, with responses running from "never" to "23+." For frequency, participants were asked how often they typically consumed alcohol. Responses for the frequency item were as follows: 1 = never, 2 = once or twice/year, 3 = six times/year, 4 = once/month, 5 = twice/month, 6 = once/week, 7 = three times/week, 8 five times/week, 9 = six times/week, and 10 = seven times/week. Using the same format, participants were also asked to estimate how often the typical college student consumed alcohol and how many drinks a typical college student consumed. For knowledge and attitudes toward campus rules and regulations, participants were asked if they know of and support these rules and regulations, know of and oppose, know of these rules but have no opinion, or are unaware of these rules.

### **Data Analysis**

Univariate analysis and Tukey's Honestly Significant Difference (HSD) post-hoc comparisons were used to compare alcohol use across levels of campus policies knowledge and attitudes. Independent *t*-tests were used to examine if any gender differences existed across levels of alcohol use and levels of campus policies knowledge and attitudes. Analyses were performed using SPSS version 16.

## **RESULTS**

As seen in Table 1, the majority of respondents were female (63%) and White (65%) and one-half (53%) lived on campus. Almost all (99%) of the students were full time and were under the legal drinking age of 21, with the average age of the respondents being 18 years old.



Table 1. Demographic Characteristics of Respondents

Characteristic	<i>N</i>	%
Gender		
Female	254	63
Male	148	37
Race/Ethnicity		
White	262	65
Hispanic	54	13
Black	30	7
Asian/Pacific Islander	21	5
Other	37	10
Residence		
On-campus	211	52
Off-campus	191	48

Table 2 reveals that alcohol abstinence at social events (parties and bars) was reported by 21% of the students, 42% reported drinking one to four drinks, and 38% reported consuming five or more drinks. Males reported drinking significantly more ( $M = 4.7$  drinks;  $SD = 4.2$ ) compared with females ( $M = 3.4$  drinks;  $SD = 2.9$ ) at social events [ $t(223) = 3.3, p = .001$ ]. When asked how often students typically drink alcoholic beverages, 15% reported that they never drink, 26% reported six times per year or less, 24% reported one to two times per month, 19% reported once a week, 16% reported three to five times a week, and less than 1% reported daily consumption of alcohol. There were no significant gender differences in regards to how often students typically drink.

Students demonstrated considerable knowledge of campus rules and regulations, with 89% reporting general awareness of school policies. As seen in Table 3, knowledge and acceptance of campus rules was reported by 39%, knowledge of and opposition to campus rules was reported by 14%. In addition, 36% generally knew of the rules but had no opinion, with the remaining 11% reporting that they were unaware of college rules. There were no significant gender differences in regards to knowledge of campus rules and regulations.

The results of the univariate analyses indicated that attitudes regarding campus alcohol policies were significantly associated with the average number of drinks students reported consuming at parties and bars,  $F(3, 398) = 23.95, p = .000$ . As seen in Table 4, post hoc testing indicated that students who know of and support campus policies consumed significantly less ( $M = 2.2$ ) than students who either know of and oppose campus policies ( $M = 5.6$ ), know of but have no

Table 2. Drinking Behaviors of Freshman Students

Item	Male <i>N</i> (%)	Female <i>N</i> (%)	Total <i>N</i> (%)
<b>Alcohol use at social events by gender</b>			
Abstain	34 (23)	49 (19)	83 (21)
No binge (1-4 drinks)	45 (31)	122 (48)	167 (42)
Binge (5 or more drinks)	67 (46)	82 (32)	149 (37)
	Mean ( <i>SD</i> )	Mean ( <i>SD</i> )	Mean ( <i>SD</i> )
Average number of drinks	4.7 (4.2)*	3.4 (2.9)	3.9 (3.5)
	<i>N</i> (%)	<i>N</i> (%)	<i>N</i> (%)
<b>Frequency of alcohol use by gender</b>			
Never	25 (17)	36 (14)	61 (15)
6 times/year or less	35 (24)	70 (28)	105 (26)
1-2 times/month	30 (20)	67 (27)	97 (24)
Once week or more	58 (39)	79 (31)	137 (34)

\*Significant difference between gender  $p = .001$ .

Table 3. Awareness and Support of Campus Rules and Regulations

Item	<i>N</i> (%)
Know of and support rules	158 (39)
Know of and oppose rules	56 (14)
Know of and have no opinion regarding rules	144 (36)
Do not know of rules	46 (11)

opinion ( $M = 4.8$ ), or do not know of the rules ( $M = 4.3$ ). Overall, students who know about and support campus drug and alcohol policy consume significantly fewer drinks than those indicating other responses.

Similarly, univariate analyses were used to examine attitudes regarding campus policies and perception of the quantity of alcohol drinks consumed at parties and bars by peers and other students in general. As expected, the results revealed significant main effects for both peers  $F(3, 397) = 16.65, p = .000$  and students in

Table 4. Frequency of Drinks at Social Events by Awareness and Support of Campus Rules and Regulations

Item	Student self-report Mean (SD)	Peers Mean (SD)	Students in general Mean (SD)
Know of and support rules	2.2 (2.9) <sup>a***</sup>	3.9 (2.9) <sup>a***</sup>	5.6 (2.9) <sup>a*</sup>
Know of and oppose rules	5.6 (3.6) <sup>b</sup>	6.9 (2.9) <sup>b</sup>	6.9 (2.8) <sup>b</sup>
Know of and have no opinion regarding rules	4.8 (3.4) <sup>b</sup>	6.2 (2.9) <sup>b</sup>	6.4 (2.6) <sup>ab</sup>
Do not know of rules	4.3 (3.4) <sup>b</sup>	6.2 (2.9) <sup>b</sup>	6.6 (3.3) <sup>ab</sup>

<sup>a,b</sup>Tukey HSD post-hoc comparisons: means in a column without a common letter are significantly different.

Significance level: \* $p < 0.05$ ; \*\*\* $p < 0.001$ .

general  $F(3, 396) = 4.07, p = .007$ . Students who know of and support campus policies perceived that their friends consume significantly less ( $M = 3.9$ ) than students who either know of or oppose campus policies perceived their friends to drink ( $M = 6.9$ ), know of but have no opinion ( $M = 6.2$ ), or do not know of the rules ( $M = 6.2$ ). Students who know of and support campus policies perceived that students in general consume significantly less ( $M = 5.6$ ) than students who either know of and oppose campus policies perceived students in general to drink ( $M = 6.9$ ), but were not significantly different that those students who know of but have no opinion ( $M = 6.4$ ), or do not know of the rules ( $M = 6.6$ ).

## DISCUSSION

In this study, the majority of incoming freshman had knowledge of campus rules and regulations. Though a majority of students responded that they knew of the rules and regulations, this knowledge did not translate into compliance with policies. School policies state that drinking or being in possession of any alcoholic beverage in public or private areas of the university, and any possession or consumption of alcohol by a minor, public intoxication, and driving while intoxicated is considered a punishable offense. Despite knowledge of the penalty for breaking university alcohol policy, which ranged from a warning to expulsion from school, a majority of incoming freshmen consumed alcohol. This demonstrates that knowledge alone is not sufficient in influencing student alcohol use behaviors, supporting the premise established by TPB that behavior is influenced less by knowledge than by attitude and intention.

Results demonstrated that there is a significant relation between students' drinking behavior and their support of alcohol policies. Students who knew of and supported the rules and regulations also reported that they engaged in low and/or no risk behaviors than all other groups, as indicated by significantly lower drinking rates. In addition, these students had significantly lower perceptions regarding peer and other students drinking rates than all other groups. The other three groups (having knowledge but opposing the rules, having knowledge with no opinion, or no knowledge of rules) had similar overall drinking rates, which were significantly higher than the knowledge and support group. All groups perceived that alcohol use among peers and students in general were higher than their own drinking rates. This is consistent with the social norms approach which states that students overestimate alcohol use (Berkowitz, 2004; Perkins & Craig, 2003).

The limitations in this study include generalizability, causality, and in-depth knowledge related to student access and knowledge of specific alcohol policies and related attitudes. These results may not generalize to a more broadly representative sample of college students in the United States since it was a convenience sample of students from one school. This sample represented a campus of predominantly Caucasian college students. Another limitation is the cross-sectional nature of the data; thus, causal relations cannot be inferred. This study also relied upon a short, self-report measure of alcohol use and campus alcohol policies; however, the reliability and validity of self-reported alcohol consumption measures among adolescents and college students have been presented in other studies (i.e., Johnston, O'Malley, & Bachman, 2001). This self-report survey specifically asks for knowledge of policies and attitude toward those policies, but does not indicate how a student knows of the policy or why the student has adopted a specific attitude. Future studies may want to include measures of recall of campus policy, method of learning of alcohol policies, and reasons for related attitudes toward those policies.

This study investigated the relationship between knowledge and attitude of campus policies and alcohol consumption as well as perceived alcohol use among peers and other students. Alcohol use among peer and general students were misperceived to be higher than actual behavior which provides support for implementing a social norms approach on campus. When planning an environmental, alcohol prevention/reduction program on a college campus, the social norms model has the capacity to correct misperception and create greater understanding and acceptance of the desired social norm thereby altering the social acceptance of the behavior (Perkins, 2003). Social norming programs focus on peer influence, which is thought to have a greater impact on individual behavior than biological, familial, religious, cultural, and other influences (Borsari & Carey, 2001; Kandel, 1985; Perkins, 2002). Research suggests that peer influences are based more on what we think others believe and do than on the real beliefs and actions (Berkowitz, 2004). Social norms initiatives have been

demonstrated to be effective in reducing alcohol use on college campuses by changing the perceived norms related to alcohol use (for review see Perkins, 2003). Strategies include acknowledging and supporting the non-drinking student (i.e., providing alternative drinking activities) and providing accurate information related to the alcohol use social norm. Reducing alcohol use makes the learning environment on a campus safer for all. Methods to reduce alcohol use by students include consistent enforcement of alcohol related policies on campus, provision of non-alcohol events, and comprehensive social norming initiatives. Policy and enforcement strategies have been strongly correlated with student alcohol use (Ringwalt et al., 2011), suggesting that school administrators need to ensure that messages reflect school alcohol policies and that those policies are enforced. The findings from this study indicate that having an understanding of student knowledge and attitudes regarding alcohol policy may be an important component. Therefore, clearly stating and consistently enforcing alcohol policies should be a priority in that it may reduce alcohol use, especially among first-year students (Borsari et al., 2007).

Surveying students regarding their knowledge and beliefs around alcohol policies can assist campus administrators and health professionals in determining not only whether or not students have accessed and reviewed the policies, but whether there needs to be more concentration on developing programs that portray accurate social norms and provide resources and services to those at high risk for heavy episodic drinking at social events. Student life and health services on college campuses can develop support programs geared toward students who self-identify as high risk. This should be done with confidentiality, providing amnesty for those who openly discuss their past behaviors.

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