

Development of Binge Drinking Behavior in College Students: A Developmental Analysis

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Abstract: Binge drinking refers to the consumption of 4 or more alcoholic drinks in one sitting for females or 5 or more drinks in one sitting for males. The practice of binge drinking has become increasingly prevalent on college campuses and represents a dangerous pattern of drinking because it is more likely to lead to intoxication and thus serious health, legal, academic, and social consequences. The present article provides an overview of binge drinking behavior and factors that lead to student binge drinking, including the culture of drinking on college campuses and the developmental, environmental, and cognitive factors that influence students' drinking behavior.

A student-created group on a popular collegiate social networking website is titled, "I only drink on days that end with Y." The group has over 200 members and its description reads,

Appealing qualities which make up the typical affiliate of this fraternal organization include, but are not limited to, the following: skilled competitor in drinking games, pictures are available to document inebriation, excellent at keg stands or beer-funneling, 'power hour' fan, possesses high tolerance or wishes to achieve one, celebrates unimportant holidays by drinking, engages in 'drunk dialing'. If three or more of these characteristics describe you it is highly encouraged that you join this upstanding organization geared to the advancement of alcoholic consumption (Retrieved November 25, 2006 from www.facebook.com).

This statement paints a vivid portrait of student drinking on campus. Heavy episodic drinking or "binge drinking" has developed its own jargon and rules for behavior known to college students everywhere. Binge drinking is, at best, maladaptive, yet the practice is prevalent on most college campuses and glamorized by many students. This review will provide an overview of binge drinking behavior and examine the

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development of such behavior in college students by exploring the history and culture of student drinking and specific factors that influence student drinking. In closing it will address the question of what can be done to prevent disordered alcohol use on campuses.

OVERVIEW

In order to understand the problem of binge drinking on campuses it is first necessary to understand what binge drinking is and the dangers associated with it. Drinking is typically measured in one of two ways, either by quantity or frequency. Quantity is a measure of how much is consumed while frequency is a measure of how often. It is important to take each measure into consideration when attempting to identify dangerous drinking patterns because reliance on one measure over the other may mask important distinctions. For example, a student who consumes ten drinks per week may not be engaging in dangerous drinking behavior if he or she is only consuming one or two drinks per occasion, but an individual who only drinks one night a week may be engaging in very dangerous behavior if he or she is consuming ten drinks during that one episode of drinking (Walters & Baer, 2006). In some cases the student who drinks only one or two drinks per night most nights may still experience negative consequences related to his or her drinking, or the student who consumes ten drinks in one night may not, but overall, the practice of consuming large quantities in short time frames is considered to be more dangerous. This pattern of dangerous drinking is referred to as binge drinking, and is usually defined for research purposes as five or more drinks during one drinking episode for men or, due to differences in body size and metabolism, four or more drinks in one episode for women (Walters & Baer).

Because it is more likely to lead to intoxication, binge drinking is considered more dangerous than other patterns of drinking. Binge drinking can affect students' health and academic performance as well as have serious legal ramifications. Health risks include accidents or injuries related to drinking, hangovers, blackouts, unplanned sexual activity, or even death due to alcohol poisoning (Walters & Baer, 2006; Wechsler & Wuethrich, 2002). Students who binge drink also tend to miss classes more frequently, devote less time to studying, and have lower grade point averages (Walters & Baer; Wechsler & Wuethrich). Additionally, binge drinkers may face legal trouble because of public intoxication, drunk

driving, or instances of vandalism, property damage, or physical fights (Walters & Baer). Nonetheless binge drinking is still a reality for many college students.

HISTORY AND PREVALENCE

Information about drinking on college campuses prior to about the 1950s is primarily anecdotal, though tales of student drinking go back as far as the mid 19th century (Wechsler & Wuethrich, 2002). In 1949 two researchers from Yale University conducted a survey that included 27 campuses, and found that 17% of men and 6% of women drank more than once per week (Wechsler & Wuethrich). During the 1960s and 70s many states began to change their minimum drinking age to 18 in response to the charge that anyone old enough to be drafted into military service should be old enough to drink. Consequently drinking became much more prevalent on college campuses because it was now legal. When the drinking age was raised to 21 again in 1984 college students held on to a sense of entitlement to drink (Wechsler & Wuethrich). Drinking rates have remained relatively steady over the past 20 years. Today approximately 80-90% of students report drinking alcohol, with 15-25% reporting heavy drinking and 44% reporting either frequent (daily, near daily, or weekly) or occasional (less than weekly, for example as part of a special event) binge drinking (Ham & Hope, 2003; Wechsler, Lee, Kuo, & Lee, 2000).

THE CULTURE OF DRINKING ON CAMPUS

While individual colleges and universities each have their own unique culture, the majority of American institutions of higher learning have within their individual cultures a sub-culture based on alcohol and excessive drinking (Wechsler & Wuethrich, 2002). This culture of alcohol takes numerous forms at various campuses, but the message is always the same: drinking is a normal and necessary part of social interaction (Wechsler & Wuethrich). This section will explore a number of elements of the culture of alcohol at some universities.

Drinking Events

Most colleges and universities have a strong sense of history and tradition, and the drinking culture at these schools is no different. Students at many, if not most, universities are easily able to identify specific rituals or events on campus that are traditionally “drinking” events. Events may be campus wide, or specific to a particular dorm or Greek organization, but they all have excessive drinking as a constant. At the University of Michigan- Ann Arbor students drink heavily in order to run the Naked Mile at midnight to commemorate the last day of classes of the spring semester (Wechsler & Wuethrich, 2002). At the same time drunken students at Cornell University are sliding down Libe Hill on the university’s campus to mark the end of the spring semester there (Wechsler & Wuethrich). At the University of Notre Dame dorms hold events such as the Wake, a week-long party that encourages students to skip classes and drink to mourn the day kegs were banned from campus more than twenty years ago. Such events draw huge numbers of student participants because of the allure of “tradition”.

Drinking Games

The description of the drinking organization featured at the beginning of this review refers to individuals who are “skilled competitors at drinking games”, but just what does this mean? There are a number of drinking games popular across college campuses today. Some are highly competitive, while others merely involve rules about when or how much participants must drink. The primary purpose of drinking games is to create an excuse for students to drink excessively. One of the most popular drinking games today is called Beer Pong. The most common variation of beer pong involves two teams of two players a piece and is played on a table that resembles a ping-pong table. Each team has a number (usually ranging from six to 16) of cups partially filled with beer in front of them. The object of the game is to throw ping-pong balls into the opposing teams’ beer cups at the other end of the table. When a player lands a ball in one of the opponents’ cups, the opponents must drink that cup. Whichever team runs out of cups first loses. Other drinking games include Flip Cup, where players compete to see who can chug a cup of beer and then flip their cup upside down on the table first, and Kings, a card game that is more or less a variation on the childhood games Go Fish and Truth or Dare. Rules and ideas for drinking games can be found online at websites, and are passed along from upper classmen to

underclassmen and from older siblings to younger siblings over the years. Research has shown that 72% of frequent binge drinkers engage in drinking games (Wechsler et al, 2000).

Greek Life

The single strongest predictor of binge drinking behavior among college students is membership in a Greek organization (Strano, Cuomo, & Venable, 2004; Wechsler & Wuethrich, 2002). A study by indicated that throughout the college years students involved in Greek organizations consistently drank more heavily than students not involved in Greek life (Sher, Bartholow, & Nanda, 2001) . This finding stood up even when previous alcohol use was controlled for statistically (Sher et al).

Greek societies are prevalent at many colleges and often financially supported by university money. They entice students to join by promising to provide brother- or sisterhood, a sense of community, and lifelong friendships—appealing concepts for many students who begin college alone and yearn for a sense of belonging. Students who wish to join such organizations must “rush” by attending events sponsored by the organization they wish to join. Current members then select new “pledges” they deem worthy of membership, and induct them into their organizations. Induction rituals are designed to build loyalty and camaraderie among members. These bonds are most frequently built through excessive drinking and drinking subsequently becomes a central part of group activity. Today fraternity houses are synonymous with “party houses” on most campuses and are often designed specifically with partying in mind—some are equipped with sloped cement or tile flooring with central drains so that rooms can be hosed down after parties (Wechsler & Wuethrich).

Athletic Events

At many colleges and universities athletic events are just another excuse for students to drink. Research indicates that as many as 53% of student fans binge drink when drinking (Wechsler & Wuethrich, 2002). Tailgating begins with early morning events such as “kegs and eggs” and students are encouraged to drink as much as they can before games begin, though many students opt to continue drinking throughout the day rather

than attending the games (Wechsler & Wuethrich). Often students who intend to attend sporting events are so drunk by the time the events begin they are unable to attend or are turned away by authorities. Drunken fans are also known for rioting after games—often regardless of the outcome—at many universities, causing expensive damage and serious injuries to both rioters and bystanders (Wechsler & Wuethrich).

Traditional drinking events, drinking games, Greek organizations, and athletic events all contribute to the culture of drinking on campus and the overall message of that culture which stresses the importance of alcohol in successful social functioning. The culture of alcohol creates an atmosphere that is conducive to excessive drinking and thus perpetuates binge drinking behavior.

FACTORS THAT INFLUENCE STUDENT DRINKING

Normal Developmental Factors

A recent article by Schulenberg and Maggs (2002) sought to address the problem of student binge drinking by examining normal developmental factors that contribute to the problem. They identified a number of factors related to college students' levels of physical, cognitive, and emotional/social development that play a role in influencing students' decisions to drink and binge drink. According to Schulenberg and Maggs college students may be more inclined to drink because physically they have developed the appearance of adults and desire to be perceived as adults, though socially they are not treated as equals. Consequently, some college students may choose to drink alcohol in order to assert their maturity or prove their "adulthood" (Schulenberg & Maggs). Additionally, college students are physically at their prime in terms of being able to withstand the effects of alcohol, which may also contribute to their decision to drink excessively (Schulenberg & Maggs). College students' cognitive development provides them with the ability to think abstractly in order to conduct cost/benefit analyses when making decisions regarding drinking, and also enables them to identify "adult hypocrisy" in many of the anti-drinking messages they receive (Schulenberg & Maggs).

Students' level of emotional and social development perhaps influences their decision to drink the most. During college most students are experiencing more autonomy and less parental monitoring than at any point previously. This increased level of autonomy provides students' with

the opportunity to make their own decisions about their behavior, and students often rebel or experiment with behaviors that had previously been forbidden or closely monitored by parents. College students are also continuing the identity development they began as adolescents, and frequently engage in a number of sensation-seeking behaviors such as binge drinking as they attempt to take in a wide range of experiences before becoming tied down by the responsibilities of adult life (Arnett, 2000; Schulenberg & Maggs). Finally, upon entering college students may experience a resurgence of susceptibility to peer influences as they attempt to foster a sense of belonging in their new environments, which in turn may contribute to their decision to engage in heavy drinking (Schulenberg & Maggs). When students who are developmentally primed to experiment with alcohol are confronted with the culture of drinking on campus, it should come as no surprise when excessive drinking occurs.

Environmental Factors

Numerous studies have explored the environmental factors that contribute to or serve as predictors of binge drinking (e.g. Clapp & Shillington, 2001; Clapp, Shillington, & Segars, 2000). Drinking in environments where other drugs were being used, where drinking games were being played, where other people present were intoxicated, where beer or hard alcohol were available, where individuals brought their own alcohol to drink, or where college friends were present were all strong predictors of binge drinking behavior (Clapp & Shillington; Clapp, Reed, Holmes, Lange, & Voas, 2006). Other factors such as drinking with family members, drinking in an environment where food was available and drinking in the context of a dating event were found to be protective against binge drinking behavior (Clapp & Shillington). While this research seems to suggest that these environmental factors may either increase or decrease the likelihood of binge drinking, it is important to note such research is correlational in nature. The environment may lead to the behavior, but it is also possible that students who engage in binge drinking are more likely to be in these types of environments. For example, it is difficult to determine based on this research whether being in an environment where drinking games were being played led to students' binge drinking or the presence of binge drinkers led to the playing of drinking games in that environment.

Cognitive Factors

Cognitive factors are perhaps the most influential factors that contribute to the development of binge drinking behavior in college students. These cognitive factors include misinformation and false beliefs about alcohol and also perceived approval of binge drinking. Wechsler and Wuethrich (2002) describe a number of alcohol related myths that many students endorse. Some of these myths include the “work hard-play hard” myth which refers to the mentality that students can drink as much as they want on the weekends without it affecting their academic success, the “everybody’s doing it” myth which refers to the belief that everybody binges and experiences the same, if not more, negative consequences because of it, the “it’s just beer” myth which refers the belief that alcohol is not actually harmful to the body, and the “sexual enhancement” myth which refers to the belief that alcohol increases both sex appeal and sexual performance (Wechsler & Wuethrich). Walters and Baer (2006) also refer to false beliefs about binge drinking as normative behavior, and positive alcohol expectancies such as the sexual enhancement myth, and add to these other false beliefs such as the belief that binge drinking is a healthy way to relieve stress, or is a necessary part of social interaction. They also note that many students fail to perceive many negative consequences of binge drinking such as vomiting, missing class, fighting, or blacking out as problematic (Walters & Baer). A study by Strano et al. (2004) found that positive alcohol expectancies and perceptions of minimal risk were among the strongest predictors of binge drinking in the population they sampled. Another study found a strong relationship between students’ beliefs that alcohol could make positive transformations, could enhance social behavior, and that binge drinking is normative behavior and the likelihood that they would experience binge-drinking related consequences (Turrisi, Wiersma, & Hughes, 2000). These consequences included being involved in fights, blacking out, drinking and driving, engaging in unplanned sexual activity, and experiencing symptoms of a hangover (Turrisi et al.). Students may feel they are making “informed” decisions about drinking, but often this is not actually the case because the information they are using to make such decisions is heavily rooted in myth or misconception.

Another cognitive factor that contributes to binge drinking is perceived approval of the behavior. Though it has been the focus of little

research, one study found that perceived parental approval of binge drinking, and maternal approval in particular, was a strong predictor of students' drinking behavior (Boyle & Boekeloo, 2006). Additionally, students' perception that their friends would not disapprove of binge drinking is also a strong predictor of drinking behavior (Strano et al., 2004). This research suggests that students who believe their parents and friends would encourage or at least condone binge drinking are more likely to do so themselves.

Developmental, environmental, and cognitive factors all play a role in influencing students' decisions to engage in binge drinking. Students are developmentally primed to engage in behaviors such as binge drinking, are in environments that are conducive to binge drinking, and hold false beliefs about alcohol and alcohol use. The cumulative effect of these factors in conjunction with the culture of drinking on campuses leads to the development of binge drinking behavior in almost half of students in American colleges and universities.

WHAT CAN BE DONE?

By the early 1980s nearly 88% of college campuses had implemented some type of alcohol programming for their students (Walters & Bennett, 2000). Today colleges and universities employ a number of tools to reduce problem drinking on campus. The majority of efforts to reduce drinking have been targeted at either the environmental or cognitive factors that lead to student drinking. Strategies to reduce the environmental factors connected with binge drinking vary widely and include strict rules such as campus-wide bans on alcohol in addition to regulations that are more difficult to enforce, for example prohibitions against drinking games. Interventions aimed at affecting the cognitive factors that lead to student drinking have taken a variety of forms. Many universities have implemented educational programs designed to inform students about the risks and dangers involved in binge drinking (Walters & Bennett). Other schools have taken a social norms approach designed to change students' perceptions about normative drinking behavior (Walters & Bennett). Much recent research has focused on brief interventions that expand on the social norms approach by providing individual normative feedback to students about their drinking behavior either by mail or in the context of brief motivational interviews (Walters & Bennett). These most recent efforts seem to be the most promising thus far because they address a

number of cognitive factors and because brief motivational interviewing is designed to elicit behavioral changes in individuals.

The development of binge drinking behavior is heavily influenced both by the culture of alcohol prevalent on college campuses and normal developmental, environmental, and cognitive factors. The alcohol culture in and of itself is not enough to induce students to engage in binge drinking behavior, nor are any of the normal developmental, environmental, or cognitive factors alone enough to cause students to binge drink. When, however, students are exposed to both the culture of alcohol and some or all of the other factors that lead to problem drinking, it is likely that binge drinking behavior will develop. The 20% of students who abstain from using alcohol and the 56% of students who do not engage in binge drinking are likely students who have been able either to avoid exposure to the culture of alcohol or who are not, for whatever reason, affected by the triad of normal developmental, environmental, and cognitive factors that lead to binge drinking. Future efforts to reduce binge drinking on campus should attack both the culture of student drinking and this triad of factors in order to be most successful.

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