



Published in final edited form as:

*Am J Drug Alcohol Abuse*. 2013 September ; 39(5): . doi:10.3109/00952990.2013.827202.

## Are “extreme consumption games” drinking games? Sometimes it's a matter of perspective

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### Abstract

Drinking games are widespread on college campuses and pose health risks to their players. Although there has been considerable research progress in the college drinking games literature, there does not appear to be a standard definition of the term “drinking games.” Researchers, however, have attempted to classify and categorize drinking games in a systematic manner. For example, one category of drinking games (e.g., chugging, keg stands) is often referred to as consumption or extreme consumption games. Questions remain as to whether or how these types of games align with researchers' definitions of drinking games or the categorization systems advanced by researchers in the field. Potential challenges regarding the definition and categorization of drinking games, particularly with respect to extreme consumption types of games, are discussed.

### Keywords

College students; drinking games; pregaming; problem drinking

### Introduction

Drinking games are prevalent on college campuses. For instance, in one large scale, multisite study, nearly half of the students reported that they played drinking games at least once in the past year (1). Additionally, LaBrie et al.'s (2) large scale study (also conducted on multiple college campuses) with a sample of drinkers indicated that 70% had played a drinking game in the month prior to assessment. While the bulk of drinking games research has been conducted with currently enrolled college students, emerging research also suggests that many students have participated in drinking games prior to entering college (3). For example, Borsari et al. (4) found that 63% of the incoming college students in their sample reported lifetime participation in drinking games. In Kenney et al.'s (5) study,

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**Declaration of interest:** We report no conflicts of interest and we alone are responsible for the content and writing of this manuscript.

approximately 54% of the first-year college students reported that they played drinking games during the last months of high school. Haas et al. (6) surveyed a sample of entering college freshmen who indicated prior alcohol use and found that students reported playing drinking games about half the time they consumed alcohol. Overall, the prevalence of drinking games participation before and during college is an important health concern because (a) students' drinking behaviors in college may be an extension of their previously established high-risk drinking behaviors like drinking games participation, and (b) such behaviors can persist or even intensify when they arrive in college (7).

While the aforementioned findings highlight the prevalence of drinking games among incoming and current college students, the short- and long-term (8–10) effects of heavy alcohol use and related problems that may result from drinking games participation are also worth noting. Heavy drinking and experiences with alcohol-related problems during college can serve as a conduit between drinking games participation and both short- and long-term drinking consequences (e.g., alcohol use disorders). Using a nationally representative sample of college students, Jennison (10) found that heavy alcohol use during college among men, and continued usage and experiences with alcohol-related problems among women, were linked to alcohol abuse and dependency disorders later in life. Because extreme consumption games lend themselves to heavy alcohol use, it is conceivable that college students who participate in these games could be susceptible to long-term alcohol-related problems, particularly if individuals continue to engage in this activity beyond the college years. Moreover, using a large multisite sample of college students, Ehret, LaBrie and Hummer (11) found that student gamers reported higher perceived alcohol tolerance than student non-gamers, and in turn, higher levels of perceived tolerance were related to higher consumption levels while gaming. Thus the combination of perceived tolerance and the heavy consumption of alcohol associated with drinking games participation can place gamers at increased risk for short- and long-term negative drinking consequences.

## What are drinking games?

Although there is no standard definition of the term “drinking games,” our review of the literature suggests that drinking games meet all of the following criteria: (i) drinking games are governed by a set of specific rules (which may be simple or complex) that specify when participants should drink and how much alcohol to consume, (ii) drinking games are designed to promote increased alcohol consumption within a short period of time to facilitate intoxication, (iii) drinking games are social events, and (iv) drinking games involve performing some kind of physical and/or cognitive task while playing.

## Drinking games are heterogeneous

Given that there are hundreds of different types of drinking games, researchers have attempted to classify them in a systematic and coherent way (see Table 1). Based on the categories described in Table 1, drinking games can share one or more of the following features: (a) an element of skill (e.g., coin games), (b) an aspect of competition (e.g., Beer Pong), and (c) an element of chance (e.g., 7–11 or Doubles dice game). There are, however, some drinking games that do not encompass many of these features. For instance, some games center primarily on chugging alcohol in a short time period. These games could be classified under the category of consumption games or extreme consumption games (see Table 1). Other types of games may focus mainly on promoting group cohesion and camaraderie such as movie drinking games where participants drink according to an agreed upon set of actions, phrases, and/or events in a movie. In essence, drinking games can vary not only according to their unique game playing features (12,13), but also with respect to

“specific consumption levels and the primary way in which the game promotes drinking” (2, p. 2134).

The heterogeneity of drinking games has prompted researchers to examine how drinking behaviors might differ across certain types of games. For instance, Zamboanga et al. (14,15) found that students' perceived levels of intoxication were highest for extreme consumption games compared to other kinds of games. LaBrie et al. (2) found that on average, the peak number of drinks consumed by players was highest for extreme consumption games, followed by targeted games (see Table 1 for descriptions). Although the mean peak number of drinks consumed by players while playing even competition games and chance games were similar, they were lower compared to the average peak number of drinks consumed while playing extreme consumption games and targeted games. Finally, results from Polizzotto et al.'s (13) qualitative analyses revealed that a number of competitive games that do not involve skill (e.g., Centurion, Vodka Shootout) were the most hazardous types of games because such games emphasize rapid consumption of large amounts of alcohol. In short, compared to other types of drinking games, extreme consumption games appear to pose the greatest risk for elevated alcohol consumption.

### Points for consideration

It is debatable whether an extreme consumption game such as chugging satisfies all four criteria of our proposed definition of drinking games. Criterion (i) is likely satisfied because even the simple act of chugging is subject to a simple rule (i.e., finish the drink). Additional rules such as time limits, blindfolds, etc. are often added to vary the game. Criterion (ii) is also likely satisfied because chugging is clearly designed to promote rapid alcohol consumption and to quickly elevate blood alcohol concentrations, thus resulting in intoxication. Criterion (iii) is satisfied when chugging is undertaken as part of a social occasion. This is not to say that it is impossible to perform the act of chugging alone and, indeed, many of the drinking games described in this paper are capable of being performed alone. However, the social component of drinking games is a central element of their nature and chugging alcohol can occur as part of a social event.

Arguably, Criterion (iv), when coupled with an individual's notions about the skills involved in drinking games, is a potential source of definitional ambiguity. For instance, Polizzotto et al. (13) noted that although they may involve competition, high consumption games like Centurion (players drink one alcoholic beverage per minute for 100 min and are penalized if they do not succeed) or Vodka Shootout (players consume shots of vodka and the person left standing is deemed the winner) may not involve much skill. Consistent with this suggestion, Borsari (12) noted that consumption games require minimal strategy. These observations suggest that some might question whether chugging can satisfy criterion (iv), and therefore, meet our proposed definition of a drinking game, if the only physical or cognitive task involved is the consumption of alcohol at a rapid pace. On the other hand, some students likely perceive a person's ability to rapidly “chug” high volumes of alcohol, especially while blindfolded or while performing some kind of motor task, to be something that requires a fair amount of skill and strategy. Some students might also view a person's ability to drink heavily and rapidly without showing any appreciable effects (behavioral tolerance; a.k.a., “holding one's liquor”) while performing these tasks to also require a certain degree of skill (16). On balance, it seems that a strong argument can be made that extreme consumption games do satisfy criterion (iv), and therefore, these behaviors should be considered drinking games.

## Research and clinical implications

Given the points above, there is a potential disconnect between researchers' or clinicians' and students' views about whether extreme consumption games qualify as drinking games. First, students' notions of whether extreme consumption games are drinking games *and* the extent to which such games require a certain amount of skill can be subjective. Indeed, it is not uncommon for students to define and categorize the games themselves as is evident on instructional websites where many games tend to fall under a “chugging” drinking games category. Prior research (2,14,15) also suggests that there are college students who, for instance, consider chugging to be a drinking game (even though it is often an aspect of many drinking games that have rules and require skill). Thus, when it comes to defining drinking games, researchers (as well as clinicians) might consider specifying whether their definition includes (or excludes) extreme consumption games, and also provide a list of examples of such games. Categorizing extreme consumption games may be challenging given the possibility that some students might perceive chugging as something that requires a fair amount of skill and strategy. Researchers might therefore consider asking students (a) how much skill (if any) they think is involved when it comes to extreme consumption games, and (b) whether or not they consider extreme consumption games to be drinking games.

Considering extreme consumption games in the context of other types of drinking games will also be valuable for both researchers and health professionals. For instance, a clinician would likely identify a high-risk drinker who denies participation in drinking games as a non-gamer; however, this same person may not report participating in drinking games despite participation in extreme consumption games because he or she does not view such activities as drinking games. Such discrepancies could affect the veracity of participants' self-reports of their drinking game behaviors and in turn influence the ways in which health professionals might identify and intervene with high-risk drinkers engaging in extreme drinking games. Furthermore, it might be helpful if researchers and clinicians collect data on both the quantity/frequency of extreme consumption gaming as well as how often students participate in extreme consumption games *relative* to their overall drinking frequency (e.g., “When you drink, how often do you play extreme consumption games?”) (6). This approach to assessing extreme consumption gaming has implications for both prevention and intervention efforts. For instance, students who only drink once a week but partake in extreme consumption games every time they drink could be at greater risk for negative drinking consequences than those who drink multiple times a week but play extreme consumption games only once per month. Finally, psychoeducational information about the negative drinking consequences associated with extreme consumption gaming (e.g., blackouts resulting from heavy consumption; increased risk for unwanted sexual experiences; alcohol poisoning) could be integrated into a college/university's overall alcohol prevention programming.

Extreme consumption games can also have important implications for pregameing. LaBrie et al. (17) and Hummer et al. (18) have recently begun to examine the intersection between drinking games and pregameing, a high-risk drinking activity that involves drinking before going to a social gathering or event [a.k.a., “preparty” or “front-loading”; (19)]. Research suggests that college students who participate in drinking games as a form of pregameing are at great risk for experiencing negative drinking outcomes (17,18,20). Participation in extreme consumption games as a form of pregameing is a relevant consideration as students who pregame might be in a rush to get intoxicated before moving on to their next drinking destination. The dual health threat of extreme consumption games and pregameing (which involves movement from location to location, by automobile or other means) highlights the need for clinicians and researchers to assess and address students' involvement in extreme consumption games when pregameing.

## Conclusion

Drinking games are not only widespread on college campuses, but they can also pose health risks for college students who participate in them. Considerable progress has been made in the college drinking games research over the past 20 years, which has provided researchers and clinicians a better understanding of this high risk drinking activity. However, there is still much work to be done, particularly with respect to establishing a standard definition of extreme drinking games as well as a coherent system to categorize the various types of other drinking games. The works of Borsari (12), Polizzoto et al. (13), and LaBrie et al. (14) represent important steps towards this goal, yet also highlight important definitional and categorical issues that need to be further addressed in future research.

We acknowledge that drinking game participants might also be internally motivated to get drunk because it is fun and/or because they want to observe others become less inhibited while intoxicated. For a review on the different motives for playing drinking games, please see Johnson and Sheets (24).

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**Table 1**

Published reports on the categorization of drinking games in peer-reviewed journals in the last 10 years.

Author(s)/Type of Article	Source	Description of Drinking Games Categories
Borsari (2004) Review Article (12)	Provided descriptions of drinking games published in prior reports.	Described different drinking games according to their unique game playing features. Drinking games tend to fall into six categories: <ol style="list-style-type: none"> <li><b>1</b> <i>Motor skills</i> (e.g. Quarters): In these games, participants perform a specific motor task; those who fail to perform the task are forced to drink.</li> <li><b>2</b> <i>Verbal skills</i> (e.g. Animal): Players repeat word sequences or phrases and a player who commits an enunciation error must drink.</li> <li><b>3</b> <i>Gambling</i> games (e.g. Three Man): These games are based on chance such as the roll of a die or flip of a card. Winners are not required to drink but losers are.</li> <li><b>4</b> <i>Media</i> games (e.g. Roxanne): Participants are required to drink based on a specific cue in a song or movie.</li> <li><b>5</b> <i>Team</i> games (e.g. Beer Pong): These games involve some type of competition between one or more teams.</li> <li><b>6</b> <i>Consumption</i> games (e.g. 100 min Club/Centurion, chug-offs): These games have few (if any) strategies or rules. The goal of these games is to consume as much alcohol as possible in the shortest amount of time.</li> </ol>
Polizzotto et al. Empirical Article(13)	Conducted semi-structured interviews with 27 college students from Western Australia. Students were asked questions about their drinking games behaviors and specifics about the games played.	The researchers categorized drinking games according to: <ol style="list-style-type: none"> <li><b>1</b> How <i>competitive</i> the game is (i.e. competitive games vs. non-competitive games)</li> <li><b>2</b> Whether the game requires some <i>skills</i>.</li> <li><b>3</b> The extent to which <i>chance</i> factors determine the outcome of the game.</li> </ol>
The table below presents examples of game categorization based on Polizzotto et al. (2007).		
Type of game (Examples)	Does the game involve competition against another player or team?	Does the game require skills? Is the outcome of the game determined by chance?
Coins, Board Games (e.g. Trivial Pursuit)	Yes	Yes No
Centurion, Vodka Shootout	Yes	No No
Movie Game (e.g. "Star Wars", "Never, Never"	No	No No
Dice/Card Games	No	No Yes
LaBrie et al. Empirical Article (2)	3421 students from two colleges on the West coast	The researchers derived five distinct and mutually exclusive categories of drinking games:

Author(s)/Type of Article	Source	Description of Drinking Games Categories
	region of the United States were asked to report the drinking games they had played in the last 30 days. The researchers conducted internet searches for rules and descriptions of the reported drinking games. A total of 100 distinct drinking games were identified.	<p><b>1</b> <i>Targeted</i> and <i>skill</i> games (e.g. Speed Quarters): These games involve three or more players (no teams) and typically require players to use some skill or strategy to target other players to drink or avoid having to drink themselves.</p> <p><b>2</b> <i>Communal</i> games (external cue games, e.g. T. V. Games): There is no official winner or loser in these group-based games. Participants agree on a set of rules that dictate how much to drink and when. Players participate simultaneously and usually drink in response to an external cue (e.g. action, phrase, or event shown on television).</p> <p><b>3</b> <i>Chance</i> games (e.g. King's Cup): These games do not involve any (or only involve minimal) skill or strategy, and each player drinks in turn. The roll of a die or a random card drawing determines who will drink and how much will be consumed.</p> <p><b>4</b> <i>Extreme consumption</i> games (e.g. chugging): These games use simple rules (if there are any) that dictate rapid drinking only. These games consist of isolated episodes of fast-paced, usually high-volume alcohol consumption.</p> <p><b>5</b> <i>Even competition</i> games (e.g. Beer Pong): These games involve one-on-one or team versus team competition. The losing player or team must drink; the winning side (player or team) does not have to drink.</p>

Prior to the past 10 years, Douglas (21), Green and Grider (22), and Newman et al. (23) also classified drinking games using somewhat similar (and in some cases highly similar) types of categories described in this table.