

Drinking Your Way to Success? Discovering the Correlation Between Academic Major and Drunkorexic Tendencies

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Abstract

Drunkorexia is a new development among college students that has progressed from an improbable, hypothetical phenomenon to a strikingly hazardous trend. According to an article in the *Pennsylvania Daily*, Drunkorexia is defined as the “bingeing or skipping of meals in order to either compensate for alcohol calories consumed later at night, or to get drunk faster” (Cofsky, 2012). This disorder is a combination of an eating disorder and alcohol dependency. Research suggests that one in six students have admitted to restricting caloric intake in order to consume alcohol more successfully (Cofsky, 2012). Short term consequences of this disorder include higher risk of sexual assault, alcohol poisoning, cognitive difficulties, or losing consciousness. In the long run, drunkorexia can lead to liver, stomach, and heart problems (University of Missouri-Columbia, 2011). Research indicates that alcohol consumption varies across academic major (Wechsler et al., 1994). The relationship between drunkorexic behavior and academic major could answer some questions regarding the motivation behind this habit. Would those committed to health related majors have an increased motivation to maintain an ideal body type or would their increased knowledge of the human body help prevent unhealthy behaviors. The purpose of this study was to determine the relationship between college academic major and drunkorexic behaviors. The research used an online cross-sectional survey, which was administered to 254 students from a mid-sized university in southern Ohio. The sample was 69.7% female, 28.7% male, and had a mean age of 20.36. Each year in school (e.g., freshmen) was equally represented. Approximately, 18.1% of the students identified with a business major, 42.1% were in a health related field, and 14.6% were majoring in social science. No correlation was found between major and drunkorexic behaviors; however, there was a significant correlation between major and drinking habits. Business majors admitted to drinking, on average, 2.48 days a week whereas health related majors only drink 1.43 days a week. It is possible that although business and health majors report similar levels of drunkorexic behaviors, they have different motivations behind the behaviors. The implications of this study will help researchers further understand the phenomenon of drunkorexia and hopefully help determine a way to slow the rise of drunkorexic college students.

Key Words: Drunkorexia, College, Drinking

1. Introduction:

As more students venture to college, it seems as if the habits of the college lifestyle are becoming more prevalent and influential on students' lives. Due to the increased freedom of college life, many students begin to explore alcohol and drugs. This trend has become so common that drinking and drugs have become pillars of college culture. These activities are encouraged by peers to the extent that many reluctant students are pressured into experimenting with these substances. Due to the commonality of these activities, and the lack of education related to these habits, many students abuse drugs and alcohol in the college environment. This abuse leads to many consequences that influence the physical, academic, and social well-being of students. “Student deaths from

unintentional alcohol-related injuries rose 6% between 1998 and 2001,” reaching 1,717 per year (Burke, 2010). Over a two-year span, over 500,000 college students were injured while under the influence of alcohol, and over 600,000 were hit or assaulted by another student who was intoxicated (Hingson, 2002). Even more alarming, alcohol has been involved in up to 50% of accidental drownings among teens and adults (Burke, 2010).

The consequences of irresponsible choices are felt by not only the student and immediate family, but also by peers, the university, and even the entire nation. According to the *American Journal of Preventative Medicine*, excessive drinking cost the nation \$223.5 billion in 2006 – the majority of which was due to loss of productivity (Ellen et. al.). Binge drinking was responsible for 76.4% of this estimate. This approximates \$0.90 dollars in economic cost per alcoholic drink (Wolaver, 2002). There is no denying that excessive drinking effects the government, but the consequences are just as drastic for the university. According to Burke, alcohol related arrests have increased 21% between 2001-2005 and account for 83% of campus arrests. Funding the campus police system is a major cost of a university which is even more essential when binge drinking is practiced. The campus police are also necessary to deal with alcohol related sexual assaults and date rape which effected 97,000 students in 2001 alone (Burke, 2010).

While awareness for alcohol abuse has risen, there is still much improvement to be made. In 2005, Burke found 68% - 70% of college students drink regularly and 40% habitually binge drink. These statistics have not changed since 1993. The only significant change has been detrimental to society; between 1993 and 2001, those who binge drink at least 3 times in 2 weeks have risen to 16%, those who drink on at least 10 occasions in a month have risen to 25%, those who have gotten drunk in the past month at least 3 times have risen to 26%, and those who drink to get drunk have increased to 21%. Ultimately, the proportion of college drinkers has remained constant- about 70% - but the recent changes involve an increase in the percentage of students drinking to get drunk and drinking more frequently (Burke, 2010). Because of this trend, the adverse effects of drinking are increasing. More students are heavily intoxicated a greater percentage of the time which leads to greater risk of alcohol poisoning, injury, property damage, and alcohol dependence. More research is necessary on the subject of alcohol because little progress has been made. Often, universities take no responsibility for alcohol prevention beyond standardized online education courses. According to Burke, only one-fifth of university administrators admit their schools bear primary responsibility in prevention of substance abuse among students. Most would admit this responsibility is with the students. The prevention services that are available are typically off campus and are not equipped to address students' needs.

Another issue that is rampant within the college population is eating disorders. Along with the lifestyle of college comes the pressure to have the ideal body and be physically fit. Fear of the “Freshman Fifteen” leads to overcompensation and unhealthy habits. While most commonly associated with women, 20% of male and female college students reported an eating disorder at some point in their lives (Burke, 2010). Sabina White discovered a 15% increase in females and 50% increase in males of eating disorders between 1995 and 2008. The large increase in the male population is due to the increase of boys with disordered eating (White, 2011). The National Institute of Mental Health's guide states 1 in 5 women struggle with some type of eating disorder. This adds up to 24 million Americans and 70 million individuals worldwide. The population of eating disorders is so heavily concentrated in the college environment which is why disordered eating in college is such a vital topic. 91% of women surveyed on a college campus had attempted to use diet to control their weight. 22% of which dieted “often” or “always” (Kurth, 1995). According to the Alliance for Eating Disorders Awareness, 19% of college aged women in America are bulimic. The same organization recorded that an individual with anorexia is 12 times more likely to die at her age than a healthy woman of the same age. These statistics represent disordered eating as a prevalent, ongoing issue within college society.

While alcohol abuse and eating disorders are severe problems on a college campus, the combination of the two can be lethal. The term “drunkorexia” was defined as “bingeing or skipping meals in order to either compensate for alcohol calories consumed later at night, or to get drunk faster” according to the *Pennsylvania Daily* (Cofsky, 2012). Common on the college campus, drunkorexia enables students to drink excessively and frequently without putting on the pounds. It also allows them to feel more inebriated after consuming less alcohol. Burke found a positive relationship between dieting severity and frequency of binge drinking which leads to a hazardous combination. The 30% of students that restricted calories also reported binge drinking 10-19 of the last 30 days (Burke, 2010). 20% of students that admitted to binge drinking and restricting calories did so on more than 20 days in the past 30. This shows that the combination of binge drinking and calorie restriction is an alarming problem. This problem can lead to chronic and fatal health complications such brain, heart, liver, and stomach damage. More mild complications include difficulty concentrating, blackout, alcohol poisoning, and poor time management.

The relationship between disordered eating and alcohol abuse is one that needs to be analyzed because it is increasing in prevalence and severity. Drunkorexia occurs in both genders, but usually with different motivation.

Women restrict calories in order to prevent weight gain and men limit calorie intake to get drunk faster and save money on food and alcohol (Wolaver, 2002). According to a study in 2010, 14% of students restricted calories prior to drinking. 6% of freshman were avoiding weight gain and 10% were trying to exaggerate the effects of alcohol ("Starving for a drink," n.d.). The motivating factors are numerous and vary per individual but any form drunkorexia is dangerous. This study will assess the effect of students' academic major on drunkorexic tendencies. Those in health-related professions might tend to overcompensate for alcoholic calories through exercise. Those in non-health-related majors might rely on caloric restriction to achieve the same goal. Research on this topic will shed light on the motivation behind the different forms of drunkorexia. This study will determine the correlation between academic major and drunkorexic tendencies.

2. Method

2.1 participants

This study assessed 254 participants who were students of a highly selective, public, midsized, Midwestern university. The sample was 69.7% (n=177) female and 28.7% (n=73) male. The majority of participants were between the ages of 18-22 (M=20) with 60.2% of the population under the legal drinking age. Asian American (2.8%) African American (4.2%) and Hispanic (2%) subjects were represented in the population, yet 90.2% were Caucasian. 18% of the population identified themselves as business majors and 42% were studying health and sports studies. Other majors significantly represented were education, social science, humanities, and natural science. When asked about their current weight, the majority of students (65.3%) reported being either somewhat happy or somewhat unhappy with themselves. Of the 254 participants, 89.4% (n=227) admitted to having at least one alcoholic beverage in their lifetime.

2.2 Procedures

Data was collected through an online survey housed by Checkbox 4.6 software and voluntarily distributed through the list serves of the university in the snowball method. A drawing to win a \$50 gift card provided incentive for participants to join. Participants were given a consent form and not pressured into participating in the survey. All procedures were approved by the IRB of the authors.

2.3 Measures

The online survey included questions pertaining to participants' demographics: age, year in school, race, academic major, and grade point average (GPA).

The survey included 3 questions concerned with frequency and amount of alcohol consumption. Participants were told the definition of a standard drink and then asked questions such as "In a typical week, on how many days do you have at least one drink containing alcohol?" and "How many drinks do you have on a typical day when you are drinking?" Participants were also asked questions about body image such as "rate your happiness with your current weight." Response options included 5 choices (completely unhappy, somewhat unhappy, neither unhappy or happy, somewhat happy, and completely happy).

The drunkorexia scale was developed by Burke and examines the type and frequency of behaviors of participants who restrict calories on days they engage in drinking alcohol. It also assesses the tendency of participants to overcompensate for liquid calories through exercise. A typical question would read "Think about the times that you have restricted our calories or food intake because you were planning to drink alcohol later that day. How often would you say that you restricted your calories for each of the following reasons? The day after I drink, I..." Responses include options such as "will compensate by eating less," "will workout for an extended period of time to work off the extra calories," "Think about the calories I consumed while drinking." The questions in the survey were based off the Transtheoretical Model.

3. Results

Descriptive statistical analysis determined that of all the participants ($n=254$) 69.7% ($n=177$) were female and 28.7% ($n=73$) were male. While ages ranged from 18-22 ($M=20$), 60.2% of the population was under the legal drinking age of 21. 18% of the students identified themselves as business majors and 42% were studying health and sports studies. The majority of the students were either somewhat happy or somewhat unhappy with their current weight and 89.4% admitted to having at least one alcoholic beverage in their lifetime.

When questioned about how many days of the week students consumed at least one drink, the majority (50.8%, $n=133$) answered with either 2 or 3 days. This included all majors. Business majors specifically reported drinking 2.5 days ($M= 2.48$, $SD = .192$) of the week. Health and sports studies students reported drinking on average 1.4 ($M = 1.43$, $SD= .128$) days of the week. Humanities majors drank slightly more than business majors ($M = 2.58$, $SD = .376$) and Education majors drank slightly less ($M = 2.28$, $SD = .348$). Natural Science majors consumed at least one alcoholic drink on average 1.67 days of the week ($M = 1.667$, $SD = .336$) and Social science majors drank on approximately 2 days in a typical week ($M = 2.10$, $SD = .223$)

On a typical day of drinking, students in general (regardless of academic major) drank 4.441 drinks ($SD = .253$). Business majors reported drinking the most alcoholic beverages ($M = 6.04$, $SD = 2.97$) and health and sports studies majors reported the least ($M = 3.69$, $SD = 2.98$). Education ($M = 4.57$, $SD = 2.68$), humanities ($M = 4.42$, $SD = 2.61$), natural science ($M = 3.80$, $SD = 2.54$), and social science ($M = 4.12$, $SD = 2.69$) majors all had similar results.

When questioned on the maximum drinks consumed in one drinking occasion within the last month, students in general reported 7.37 drinks on average ($SD = .438$). Business majors had the highest reported values ($M = 9.93$, $SD = 4.90$) and humanities majors were not far behind ($M = 8.33$, $SD = 7.02$) followed by education majors ($M = 8.14$, $SD = 6.83$). Health studies ($M = 5.10$, $SD = 4.35$), natural science ($M = 5.86$, $SD = 4.02$) and social science ($M = 6.88$, $SD = 5.07$) had results lower than the average.

A oneway ANOVA examined differences of drinking frequency and amount based on academic major. The difference of “number of drinks on a typical night ”was significant between majors, $F(5, 223) = 4.46$, $p = .001$. The “highest number of drinks consumed on a single occasion within the last 30 days” was also significant, $F(5, 222) = 6.75$, $p <.001$. Finally, the “average days per week in which alcohol was consumed” showed variance between academic major as well, $F(5, 224) = 5.69$, $p < .001$.

A oneway ANOVA examined differences on the Drunkorexia Scale across the classifications for college major. It was non-significant, $F(5, 133) = 1.61$, $p = .16$, thereby indicating that the majors did not differ on the number of Drunkorexia symptoms that they endorsed.

4. Discussions

This study is unique because it analyzes the newly recognized convention of drunkorexia in terms of academic major. Because drunkorexia is such a complex social, psychological, and physiological phenomenon, it is important to assess all aspects of the individual in order to conclude the primary motivations and develop essential preventative and treatment methods. While drunkorexia is present outside of the college population, this is the time period in which most begin to practice drunkorexic behaviors. The cyclical pattern of binge drinking, caloric restriction, and over-exercise is encouraged in the college environment and has therefore become typical.

Drinking is perhaps the most signature habit of college students. It also has the potential to be the most costly – both financially and emotionally. Hingson and other researchers from Boston University researched the magnitude of morbidity and mortality due to alcohol consumption. They estimated over 1,400 students died in 1998 alone due to accidental injuries (i.e. motor vehicle crashes). A startling survey revealed one-fourth of college students in the U.S. Drove under the influence in 1999 (Hingson, 2009). 600,000 students were hit or assaulted by a student whom had been drinking alcohol.

The pattern of college drinking is deeply rooted yet is susceptible to preventative precautions because it is socially constructed. Drunkorexia is potentially the same; this study aims to determine the motivations' origin and provide more data on the topic.

Eating disorders have an indisputable presence on the college campus. Burke reported that 20% of college students have officially admitted to dealing with an eating disorder at some point in their lives (Burke, 2010). Since many students fail to officially recognize an eating disorder this statistic is most likely much lower than reality. It

also only includes the most extreme cases although eating disorders are recognized to exist on a spectrum. Current drunkorexia statistics are similar due to the social connotations of both eating disorders and alcohol-dependency.

Although there are many motivations that can trigger drunkorexia, most involved maintaining weight to some extent; this makes the disorder more difficult to treat and prevent. Burke found a strong positive relationship between dieting severity and the frequency of alcohol consumption – most often binge drinking (Burke, 2010). CBS found that 30% of young women with some type of alcohol problem also develop a form of disordered eating. A national study on the comorbidity of bulimia nervosa and alcohol use disorders found that prevalence of an alcohol disorder was higher in women who reported bulimia. This is accurate when major depressive disorder and post-traumatic stress disorder are controlled. This reiterates the development of drunkorexia because alcoholic disorders and eating disorders often coincide.

Although the term “drunkorexia” was coined within the past decade, this phenomenon has been taking place much longer. It is essential to understand the cofactors of the disorder in order to create and implement an effective prevention strategy. There is one organization already in operation; BASICS – brief alcohol screening and intervention of college students. The program avoids a judgmental or confrontational front and instead promotes reduced drinking, healthy lifestyle choices, and effective coping skills (Dimeff, 1999). The structure of the program is two 50 minute interviews a week apart and a self-report survey provided beforehand. BASICS takes on a harm reduction approach and tries to reduce risky behavior in order to prevent negative consequences of drinking. It has been proven effective in a traditional college atmosphere and has been dubbed the model program by the Substance Abuse and Mental Health Services Administration of the U.S. Department of Health and Human Services (Dimeff, 1999). This program has proven very effective in terms of alcohol-related problems but would need to be altered dramatically to help students exhibiting drunkorexia. Motivation behind alcoholic and caloric-restriction components must be addressed. There is no such program which is a contributing factor to the rising prevalence of drunkorexia. This study will provide vital information in understanding the motivating factors and mental processes which can be used to develop a program similar to BASICS that is aimed specifically towards students displaying drunkorexic tendencies.

While this study provides important information regarding drunkorexic tendencies, there are some limitations in its span. The research was done at a mid-size, Midwestern university with a large population of females and Caucasian students. The sample population reflects this. The sample size was relatively small (n=254) so generalizations were made. The nature of research on social disorders is very subjective. A self-report survey is efficient and easy to perform, yet leaves much room for personal bias and faulty recall. Recall is especially poor when the student is attempting to remember an event under the influence of alcohol. Often, one's estimate of drinks consumed is far from accurate. Exercise is another area of potential over-exaggeration. Many students may intend to compensate through exercise yet not follow through on this plan. Regardless of these limitations, this research has many important applications in the college environment. Understanding the factors that lead to drunkorexic behaviors is key to developing a preventative plan and treatment regimen. Social construction can be altered to produce an environment that is conducive to healthy recreational behaviors. While there is no way to eradicate stereotypes and the desire for the “ideal body” there can be a rising sentiment of acceptance and self-confidence instilled in the college environment. With the data from this study, progress can be made to encourage a healthy college atmosphere and reduce the prevalence of drunkorexic behavior in general.

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