

A Risky Cocktail: An Examination Of Drunkorexia Behaviors And Alcohol Consumption Based On Gender.

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Abstract

Alcohol consumption is an important public health concern and college students represent the population with the largest proportion of problem drinkers (Barry et al., 2012). Similar to alcohol consumption, eating disorders have become a significant issue on college campuses (Burke, 2010). According to the National Association of Anorexia Nervosa and Associated Diseases, 91% of college women surveyed had attempted to control their weight through dieting in some manner (ANAD, 2012). The coupling of alcohol use and disordered eating practices is a risky cocktail. Drunkorexia is a term coined by the popular media to describe compensatory eating and exercising behaviors either following or preceding an alcohol consumption episode (Rahal et al. 2012). Both alcohol consumption and eating disorder behaviors vary across gender (ANAD, 2012; NCASA, 2007). The objective of this research is to extend the literature and examine the relationship between college students' drinking behaviors and their Drunkorexia behaviors across gender. A total 254 students participated from a mid-sized Midwestern University. They were recruited using the snowball technique. They took the online survey and reported a mean age of 20.36 ($SD = 3.31$). A majority of the participants reported being Caucasian (90%) and female (69.7%). A t-test was used to examine the Drunkorexia behaviors across gender. Males report more Drunkorexia behaviors than females. In addition, replicating the literature there were gender differences across all quantity and frequency measures of alcohol consumption. However, there was no correlation between the number of Drunkorexia symptoms and the alcohol quantity and frequency measures. These findings are crucial for implications for interventions. Given the non-significant correlation between Drunkorexia and alcohol consumption, future studies exploring this finding are warranted.

Keywords: Alcohol, eating disorder, gender

1. Introduction

Alcohol consumption is an important public health concern and college students represent the population with the largest proportion of problem drinkers (Barry et al., 2012). Binge drinking is the majority of alcohol consumed on college campuses (Burke, 2010). Binge drinking is defined as having four or more drinks in a row in the past two weeks for women and 5 or more drinks in a row in the past two weeks for males. College men are more likely to report drinking heavily than college women (NCASA, 2007). Alcohol contributes greatly to numerous deaths a year specifically those in the 18 to 24 age range (Giles et al., 2009).

Similar to alcohol consumption, eating disorders have become a significant issue on college campuses (Burke, 2010). The past couple of decades have shown an increase in research and public awareness of the eating disorders anorexia nervosa and bulimia nervosa (Goldbloom, 1993). Eating disorders are believed to be associated with substance abuse disorder (Corte et al., 2000). There seems to be a counterintuitive occurrence between habitual drinkers engaging in excessive exercise (Barry et al., 2012). Drunkorexia is a newly coined term that has been

publicized in the media describing eating and drinking behaviors of “weight conscious” drinkers explaining a relationship between alcohol consumption and physical activity and diet (Barry et al. 2012). Drunkorexia is characterized by two specific behaviors including skipping meals to “save” calories in compensation for calories consumed from alcohol and excessively exercising to manage weight from alcohol consumed. Another theme of Drunkorexia is purging to excrete the already ingested calories from drinking or to get intoxicated faster or easier (Rahal et al., 2011). Drunkorexia is thought of as a way to optimize intoxication levels or maximize alcohol blood levels by drinking alcohol on an empty stomach (Rahal et al., 2011). Although Drunkorexia is not clinically recognized, however there have been numerous other names relating to other troublesome behaviors such as “manorexia” pertaining to the male version of anorexia nervosa (Monette, 2012). There are thought to be three main types of disorder eating including dieting, which was the only type found to be associated with alcohol associated risks, expressing concern for a real link between disordered eating and heavy alcohol consumption (Fraser 2012). The misuse of the combined excessive alcohol consumption and disordered eating amongst college students has created concerns nationwide (Burke 2010).

A young, female college student, prone to binge drinking due to the pressures of college lifestyle and preoccupied with body image, is typically thought to be the candidate for Drunkorexia (Monette, 2012). Women typically weigh less than men, have metabolic differences, and typically have less water in the body to dilute the alcohol consumed than men (Monette, 2012). According to the National Association of Anorexia Nervosa and Associated Disorders (ANAD), 91% of college women surveyed on a campus had attempted to control their weight through methods of dieting, with 22% of college aged women responding “dieting always.” A study involving incoming freshmen reported 72% of eating disordered females used alcohol in the past month (NCASA, 2007). More college-aged males concerned with their looks and marketability with the partying lifestyle are not invulnerable to Drunkorexia behaviors (Monette, 2012). Giles et al. (2009) states women are more likely to be dissatisfied with their body image, desiring a leaner shape, however males can also exemplify displeasure as well. Nevertheless, drinking on an empty stomach or purging after drinking for both males and females allows alcohol to enter the body much quicker, causing the blood alcohol levels (BAL) to increase, ultimately creating increased negative behavioral and health consequences (Burke, 2010).

Several studies observe the relationship between eating disordered behaviors and alcohol consumption. Studies have shown the differing types of disordered eating and how those can cause increased alcohol consumption. The objective of this research is to extend the literature on these Drunkorexia behaviors and examine to see if there is a relationship between college student’s drinking behaviors and Drunkorexia behaviors across gender.

2. Methodology

2.1 Participants

The current study included participants from a midsized-Midwestern University in the sample. There were 254 participants with an age range of 18-23 years of age ($M = 20.36$, $SD = 3.3$). Women represented 69.7% ($n = 254$) of the sample. Regarding race, a majority of the participants (90.2%) were Caucasian. When asked the question, “Have you ever had an alcoholic beverage to drink,” 94.2% of the sample responded yes, they have had an alcoholic beverage. When given the phrase, “I am currently receiving treatment for an eating disorder,” 1.6% of the sample responded yes, they are receiving treatment.

2.2 Procedure

An online study housed by Prezza checkbox was conducted through the university list serves on a voluntary basis. The survey was sent out and participants were recruited using the snowball technique and convenience sample. An email invitation was sent to classes, certain classes received course credit, and others received extra credit for participation in the survey. All procedures were prior approved by the Institutional Review Board of the primary author.

2.3 Measure

2.3.1 demographics

The online survey contained questions regarding the participants' demographics: year in school, gender, age, as well as other questions pertaining to alcohol consumption, and Drunkorexia behaviors.

2.3.2 alcohol consumption

Three important alcohol consumption questions were asked. There was a response box for the participant to enter a number. The drinking questions asked included: In a typical week, on how many days do you have at least one drink containing alcohol; How many drinks do you have on a typical day when you are drinking; and During the last 30 days, what is the highest number of drinks that you have drank on one occasion. Participants were provided with the definition of a standard drink. They responded with the number of standard drinks they consumed with respect to the aforementioned questions.

2.3.3 drunkorexia

The Drunkorexia questions come from Burke et al. (2010). These questions assess behaviors of participants who restrict fat, calories, or food on days they know they plan on consuming alcohol. Participants are provided with questions beginning with the following scenario: "It is a typical Saturday during the school year. You know that you are going to a party tonight and that you will be drinking. Which of the following best describes how you would most likely eat that day?" The following responses were provided for the participants: 1. "I would eat **the same** amount as I normally eat any Saturday. The fact that I would be drinking that night wouldn't change my eating behavior." 2. "I would eat **less** than I normally eat if I knew I was going to be drinking that night." 3. "I would eat **more** than I normally eat if I knew I was going to be drinking that night."

The next set of Drunkorexia questions, published by Burke et al. (2010), allows the participant to choose from five response options (Never, Seldom, Sometimes, Often, and Very Often), the Very Often response being the high response option. The following seven questions were used to assess Drunkorexia: How often do you restrict eating food before drinking in order to avoid gaining weight; How often do you restrict eating before drinking in order to feel the effects of alcohol better or more; How often do you restrict your fat intake before drinking in order to avoid gaining weight; How often do you restrict your fat intake before drinking in order to feel the effects of alcohol better or more; How often do you restrict your caloric intake before drinking in order to avoid gaining weight; How often do you restrict your caloric intake before drinking in order to feel the effects of alcohol better or more; and How often do you intentionally eat before drinking that you won't be drinking on an empty stomach.

2.4 Analysis

A t-test was conducted to assess the first three questions regarding alcohol consumption and gender. Next a t-test was conducted to assess the Drunkorexia behavior questions and gender. A oneway ANCOVA was conducted to examine gender and Drunkorexia behaviors while controlling for alcohol consumption.

3. Data

A sample of participants from a midsized Midwestern University examined the relationship between alcohol consumption, Drunkorexia behaviors, and gender. Of the participants, 94.2% responded yes to ever having an alcoholic beverage to drink. Only 1.6% reported that they were receiving treatment for an eating disorder.

The results of the one-way ANOVA show that there was no significant difference reported for the amount of drinks consumed on the days of the week between genders. When comparing alcohol consumption between males and females, males drink more on a typical drinking occasion with 5.4 ($SD = 3.85$) drinks compared to females consuming 3.95 ($SD = 2.35$) drinks. The t-test showed a significant difference. When asked the question, "During the last 30 days, what is the highest number of drinks you drank on any one occasion" males consumed more drinks than females with an average of 9.13 ($SD = 7.29$) drinks compared to females drinking 5.82 ($SD = 3.68$) drinks. This

t-test also showed a significant difference, expressing males consume more drinks on any one occasion than females. See table 1 for complete results.

Table 1: Mean and standard deviation of alcohol consumption and Drunkorexia behaviors

	Males	Females	t test
On a typical week, how many days do you have at least one drink containing alcohol?	M=1.90 SD=1.51	M=1.86 SD=1.30	$t(239)=.19,$ $p=.85$
How many drinks do you have on a typical day when you are drinking?	M=5.31 SD=3.85	M=3.95 SD=2.35	$t(238)=3.36,$ $p=.001$
During the last 30 days, what is the highest number of drinks that you drank on any one occasion?	M=9.13 SD=7.29	M=5.82 SD=3.68	$t(237)=4.65,$ $p<.001$
Drunkorexia	M=15.0 SD=5.67	M=13.1 SD=5.18	$t(148)=2.05,$ $p=.04$

The Drunkorexia data was scored according to the scale and combined to form an average score. The mean score for males was 15.0 ($SD = 5.67$) while females score was 13.1 ($SD = 5.18$). A t-test shows a significant difference between Drunkorexia behaviors and gender. To determine if there was a correlation between Drunkorexia behaviors shown and alcohol consumption based on gender, a Pearson correlation was performed. There is not a significant difference.

4. Conclusion

Consistent with the literature, there is a significant difference between gender based on alcohol consumption. Overall, males consume more drinks on any one-day while drinking than females. Males also consume higher amounts of drinks on a peak drinking occasion in the past 30 days than female drinkers. There was also a significant difference between the Drunkorexia scores between males and females. Unlike the previous studies noted in the introduction, males exhibit more Drunkorexia behaviors than females. However, when comparing those Drunkorexia behavior scores while controlling for alcohol consumption, there is no significant difference.

These results show more research needs to be conducted within this field of Drunkorexia and alcohol consumption to make further correlations. It was found that at this midsized, Midwestern university Drunkorexia behaviors and alcohol consumption are both at a concern. The alcohol results on the amount of days alcohol is consumed can reach above 3 nights, showing students are drinking on school nights. The average number of drinks consumed on a typical night for males is 5.31 ($SD=3.85$) and for females 3.95 ($SD=2.35$). Four or more drinks for females and five or more drinks for males in one occasion are considered binge drinking. These data values show participants are binge drinking and on weekday (school) nights as well.

The Drunkorexia data shows males are exhibiting more Drunkorexia behaviors than females on nights when the participants know they will be consuming alcohol. However, since there was no correlation between alcohol consumption and Drunkorexia behaviors more research should be conducted to see if there is a reason as to why these do not correlate. Since there are Drunkorexia behaviors being shown, this is also a big concern to students' health. An alcohol and eating disorders course could be implemented to help decrease these values.

There are limitations to this study as is every study. Self-reporting does not always result in accuracy with answers. Disordered eating is a subject college aged students may not feel comfortable with answering personal questions. Not all those who participated did the survey to completion, which could slightly skew the results. As for the alcohol questions, participants may have a memory issue with remembering the amount of drinks consumed on a given night.

In contrast to predictions, male participants indicated more Drunkorexia symptoms. Further research is warranted to determine how much of this difference is due to patterns of alcohol consumption.

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6. References

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