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The Effects of Alcohol Use on Academic Performance Among College Students

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The Effects of Alcohol Use on Academic Performance Among College Students

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ABSTRACT

This study examines college students' alcohol use and how it affects their academic performance, specifically looking at grade point average (GPA). An online survey was given out to male and female students at the University of New Hampshire. Survey questions focused on how much a particular student drank on average, and then asked for a cumulative GPA. The results of the survey show no direct correlation between the independent variable of alcohol use and the dependent variable of academic performance. Further research, including a larger and more representative sample, would improve the findings.

Introduction

This research focuses on the effect alcohol use on college students' academic performance. Past research has shown the prevalence of alcohol use among college students. It has been found that a majority of students partake in drinking alcohol. It has also been found that some students are able to successfully manage their academic work in spite of drinking alcohol. Despite this finding, not all students are successfully able to partake in both activities. This topic is socially important because alcohol use is very common among students on college campuses. Alcohol use is negatively affecting some students and families by causing potential dropouts and failing classes. On the other hand, some students know how to balance their academic work with their social life and not let it affect their academic performance. The objective of this research is to successfully learn about binge drinking within the UNH campus and how it is affecting students' GPA.

Literature Review

Singleton and Wolfston (2009) examined alcohol consumption, amount of sleep, and academic performance. The authors show the relationship between alcohol use and sleep, alcohol use and academic performance, and sleep and academic performance. The participants from Northeastern were 89% white, 98% ranged between the ages of 18-22 years, and 82% lived on campus. In short, they hypothesized and concluded that students who drink more alcohol maintain poor sleep patterns, which negatively affects academic performance.

Gillespie et al. (2007) examined alcohol, marijuana, and cocaine use among college students. The authors found that two out of five college students in the United States are binge drinkers. According to the Federal Bureau of Investigation, there were more than 1.25 million arrests for drug abuse violations in 2004 (Gillespie et al., 2007). Alcohol and drug use can lead to poor decision making, like breaking the law, sexual abuse, getting in fights, etc. Of the respondents, 92.4% were white and the average age was 22.3 years. This study found that a little more than 68% reported using alcohol and/or drugs during the past year. Gillespie et al. (2007) looked at how many times a student drank alcohol in a week which then determined how many alcoholic drinks they consume on average.

Butler et al. (2011) examined the relationship between drinking and academic demands. "National surveys indicate that 40% of college students binge drink regularly, and the rate of binge drinking appears to be increasing" (2011: 359-360). The results of this study suggest that students drank 38% less when they had an exam or paper due the next day. Results also indicated that a student's current day academic demands are related to a 30% decrease in their current day alcohol consumption. This research demonstrates that some students are not reducing their alcohol intake even when they have academic demands to meet the next day.

Aertgeerts and Buntinx (2002) examined the relationship of alcohol abuse among first-year students and their academic performance. Irresponsible drinking patterns among college students in the United States range between 7% and 17%. This study was conducted using a questionnaire given to 3518 first-year students who attended this specific college. Aertgeerts and Buntinx (2002) found that 14.2% of the students were identified as having alcohol abuse or dependence, and nearly one-third of the students passed their exams on the first attempt. Results suggest that 49.7% of male students and 48.9% of female students went on to continue their second year of school. It is potentially concerning that only about half of the freshman class succeeded and moved onto their sophomore year. This may indicate that alcohol consumption is a major social issue among college students.

The research cited above suggest some unique relationships between college student alcohol use and subsequent academic performance, but they also have many limitations. Gillespie et al. (2007) only researched one University in the South, which had a lower participant rate than expected. Therefore, the study is less generalizable to the entire college population, which makes it more difficult to compare to our results from UNH students. Another limitation was that the study conducted by Aertgeerts and Buntinx (2002) occurred in the United Kingdom, so this study is also less generalizable to the US college student population, although results may be similar. Most of the research articles found a negative relationship between alcohol use and academic performance.

Hypotheses

The present research hypothesis is that using alcohol has a negative effect on college student's academic performance. The independent variable is alcohol use and the dependent variable is academic performance. The null hypothesis is that students who use alcohol are no more likely to do worse in their academics compared to students who do not drink alcohol. The alternative hypothesis is that students who abuse alcohol are more likely to have a worse GPA.

Research Method

Sample

In mid-April, all students enrolled in the Sociology Research Methods course fielded surveys to a convenience sample of fellow UNH students. A convenience sample is a nonrandom sample which utilizes a nonsystematic selection method that often produces samples very unlike the population. Benefits of using a convenience sample are low cost and time efficiency. It is most efficient for our class' research to send out surveys to fellow UNH students to gather data in a reasonable amount of time before the semester ends. One major limitation of a convenience sample is that it systematically excludes some individuals, and it is not representative of the larger population. These surveys were administered through Qualtrics, which is an online survey program. Emails were sent out to the students with the link to the survey to fill out at their own convenience. The research subjects completed the survey anonymously and they were not compensated. The first page of the survey contained the consent form, which describes the rights of the participant in taking this survey. Anonymity was ensured because signatures were not requested. Data from the survey was collected anonymously and entered into the Qualtrics program. This research may offer potential benefits for participants and the UNH community by virtue of investigating how academic performance is related to alcohol and drug use. There are also some potential risks associated with participation in this study, namely that the survey could illicit harm to the participants if they are partaking in the survey while they are currently failing classes due to alcohol use. People who will be excluded from this study are students who do not have access to a computer or email. The research participants are not generalizable to the entire population of

U.S. college students, because UNH students do not represent every college in the US.

Variables

The online survey asks 74 close-ended questions to the 223 survey respondents, both males and females from each grade. Alcohol use was operationalized using the following questions: "In an average week, about how many days do you consume alcohol?" The respondents were then given the following five options: "I do not drink, about 1 day per week, about 2 days per week, about 3 days per week, or about 4 or more days per week." The second question regarding academic performance was stated as follows: "What is your cumulative GPA?" The respondents were then given the options: "Below 2.0, 2.0-2.49, 2.5-2.99, 3.0-3.49, or above 3.5." The class reviewed the questions to make sure there would be no confusion from the participants to ensure they were answered effectively.

Results

Table 1. Sample Characteristics

<i>Gender</i>	
Male	41%
Female	59%
<i>Academic Class Standing</i>	
Freshman	18%
Sophomore	27%
Junior	35%
Senior	20%
<i>Race/Ethnicity</i>	
White	85%
Black	6%
Hispanic	5%
Asian	2%
Other	2%

Age	
18-19	31%
20-21	54%
22-23	15%
24+	0%

Table 1 includes information regarding the respondents who participated in our survey. More females (59%) than males (41%) took the survey, and a majority of these individuals were white (85%). Academic class standing varied; fewer freshmen participated in the survey (18%), compared to 27% sophomore, 35% junior, and 20% senior. More than half of the respondents were aged 20-21 (54%), with the remaining 31% aged 18-19. These results show standard characteristics of our sample.

Figure 2 shows the frequency distribution for the independent variable, alcohol use. The survey question that yielded these results is “In an average week, about how many days do you consume alcohol?” This table shows that most students vary on how much they drink. The most common response was drinking about three days per week (33%). Drinking both one or two days per week received 25%, only 8% reported about four or more days per week, and 9% reported not drinking at all.

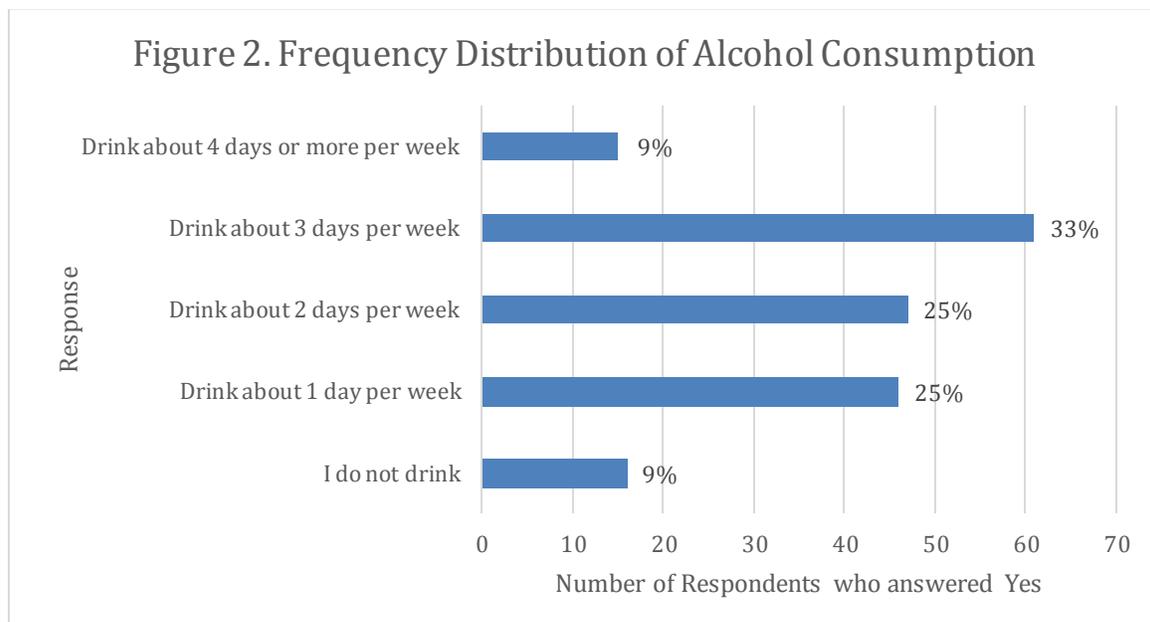
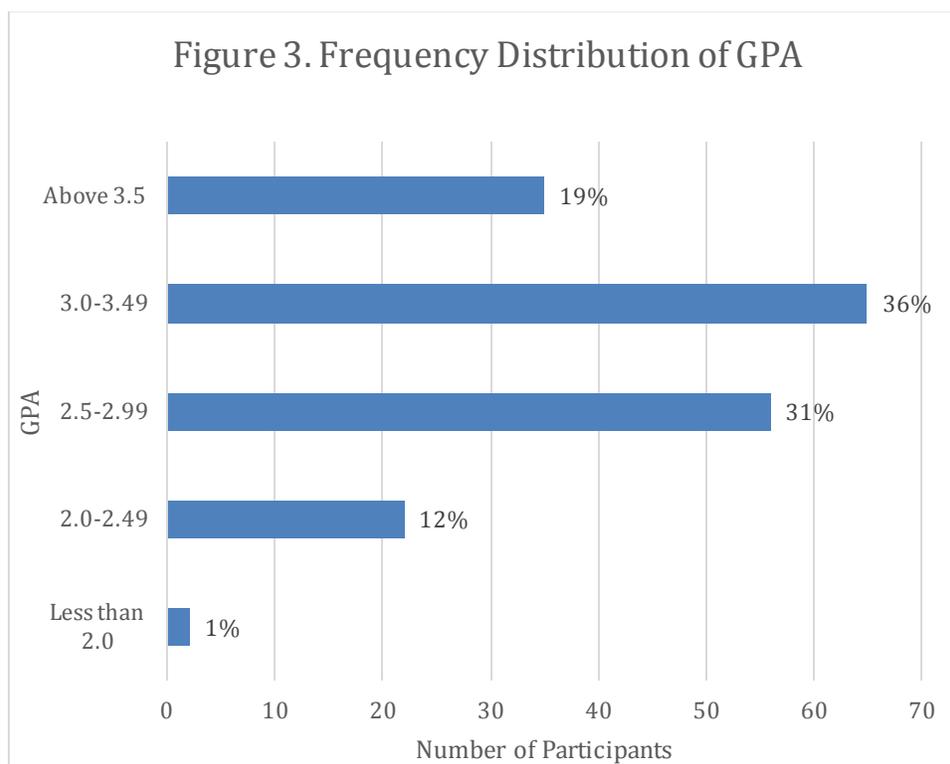


Figure 3 shows the frequency distribution for the dependent variable, which is academic performance, or GPA. The survey question for these responses asked the respondent's cumulative GPA. The most common GPA reported was 3.0-3.49 at 36%. Only 1% had below 2.0 and only 12% reported a GPA of 2.0-2.49. These statistics show that a majority of the UNH students who participated in this survey do not have a low GPA.



Main Results:

Table 4 shows cross tabulation and Chi-square analysis of alcohol consumption and GPA. The most commonly reported GPA is 3.0-3.49 and of 65 respondents, 23 (37.7%) reported drinking about 3 days per week, and 17 (36.96%) reported drinking about 2 days per week. Students who have a GPA above a 3.5 most commonly reported drinking about 3 days per week as well (14 respondents 22.95%). Only 2 students reported a GPA below a 2.0, one drinks about one day per week, and the second reported drinking about 4 or

more days per week. The most common response was drinking about 3 days per week, regardless of their GPA.

	I do not drink	Drink 1 day per week	Drink 2 days per week	Drink 3 days per week	Drink 4 or more days per week	Total
Below 2.0	0 0.00%	0 0.0%	1 2.17%	0 0.00%	1 7.14%	2 1.11%
2.0-2.49	2 14.29%	9 20.00%	3 6.52%	5 8.20%	3 21.43%	22 12.22%
2.5-2.99	2 14.29%	14 31.11%	16 34.78%	19 31.15%	5 35.71%	56 31.11%
3.0-3.49	7 50.00%	14 31.11%	17 36.96%	23 37.70%	4 28.57%	65 36.11%
Above 3.5	3 21.43%	8 17.75%	9 19.57%	14 22.95%	1 7.14%	35 19.44%
Total	14 100%	45 100%	46 100%	61 100%	14 100%	180 100%
Chi Square		16.13				
Degrees of Freedom		16				
p-value		.44				

The Chi-square analysis p-value is 0.44, which indicates that the null hypothesis cannot be rejected. Specifically, there is not a significant relationship between GPA and alcohol consumption. 224 respondents participated in this survey and those students who consume alcohol are not more likely to have a worse GPA than students who do not consume alcohol

A limitation of this study is the low number of participants, making the results less generalizable, although our results are suggestive in some cases. To improve this research, the survey should be distributed to a larger sample of the college population, not just one campus. Future research should define the term alcohol use and find out the most common days to drink alcohol, and the student’s drinking decisions based on what they have for schoolwork the next day. Further research should determine if college students

are actually being responsible with the amount of alcohol they consume, or are they just getting by and managing to pass their classes.

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