



Alcohol Use and Binge Drinking Behaviors in College Students

Keri D. Larsen^{1*}, Megan Magri², Bovorn Sirikul², Brittany Fanguy², and Karen L. Feirman³

¹Associate Professor, Department of Kinesiology and Health Studies, Southeastern Louisiana University, SLU Box 10845, Hammond, LA 70402, United States.

²Graduate Student, Department of Kinesiology and Health Studies, Southeastern Louisiana University, SLU Box 10845, Hammond, LA 70402, United States.

³Department of Education and Human Development, University of Miami, 5202 University Drive, Merrick Bldg, Coral Gables, FL 33124, United States.

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***Corresponding Author:** Keri Larsen, Associate Professor, Department of Kinesiology and Health Studies, Southeastern Louisiana University, SLU Box 10845, Hammond, LA 70402, United States.

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Abstract

Alcohol use and abuse has consistently been an issue for people of all ages and walks of life. These behaviors are increasingly worrisome in the college student population. Many things factor into this complex issue. So many students are experiencing freedom from their parents for the first time, many already have established drinking behaviors, some are dealing with mental health issues, and then they all enter an environment that encourages alcohol use, often leading to abuse. Whites' binge drinking was statistically greater compared to African-Americans and Non-White / Non-African Americans.

Methods: A sample of college students from 4 universities were administered the Youth Risk Behavior Survey. Descriptive statistics and Dunn-Bonferroni Post-hoc tests were performed.

Results: When examining drinking and binge drinking behaviors, statistical significance was found between Freshmen and Sophomores ($p=0.03$) and between Freshmen and Juniors ($p=0.042$). Also, significance was found between White vs. African American students ($p=0.001$) and White vs. non-White or African American students ($p=0.001$). The purpose of this study was to examine the alcohol use and binge drinking behaviors of college students.

Keywords: Alcohol; Drug Use; Marijuana; Binge Drinking; College Students

Introduction

Substance use and alcohol consumption among college students remains a significant public health issue, with binge drinking at the forefront of this issue [1]. In fact, drinking during the college years is more than just a behavior, it seems to be the culture of college. Ultimately, the participation in drinking behaviors is part of the expectations of the college experience. According to the 2023 National Survey on Drug Use and Health (NSDUH), of full-time college students ages 18 to 25, 49.6% drank alcohol and 29.3% engaged in binge drinking in the past month. A study was conducted and the results indicated that students with either higher levels of relief or lower levels of reward drinking greater pain were significantly associated with a higher number of alcohol-related

negative consequences [2]. The purpose of this study was to examine the alcohol use and binge drinking behaviors of college students.

Literature Review

Traditionally, binge drinking has been a societal concern for many college students. In effect, alcohol abuse is one of the greatest concerns that colleges and universities encounter [3]. It is important to note that binge drinking is more prevalent among college students (27.4%) compared to other age populations [2]. This literature review examines current research on alcohol use patterns, binge drinking behaviors, and associated consequences among university students. Recent studies indicate alarming trends in collegiate alcohol consumption and binge drinking. There are risk factors that make this particular population more likely to participate in these behaviors. Those risk factors include things such as independence from parents, availability of alcohol on campus or at campus events, peer pressure, Greek life involvement, and even athletic participation [4]. In fact, social norms seem to push young adults into those drinking behaviors. A person's prior drinking behaviors and mental health issues, along with academic and financial stressors, all play additional roles in the drinking behaviors of college students.

Binge drinking is one of the biggest growing concerns of alcohol abuse that college students encounter [5]. To clarify, binge drinking can be defined as consuming five or more alcoholic drinks for men and four or more for women in one sitting [1]. The consequences of excessive alcohol use go beyond the immediate effects of intoxication. Some of those consequences include, but are not limited to, poor academic performance, higher dropout rates, impaired cognitive and memory function, increased risk of sexual violence, property damage, legal consequences, and many more [6]. In a study of college athletes, 20.5% of binge drinking athletes report alcohol-related injuries, compared to 2.6% of those who do not participate in binge drinking [1].

Methods

This study was conducted by administering the Youth Risk Behavior Survey (YRBS) to college students. The YRBS is a national survey that is conducted by the Centers for Disease Control and Prevention,

which monitors health-related behaviors among youth and young adults in the United States. Its focus is on behaviors that contribute to the leading causes of death and disability, including substance use, sexual behaviors, diet, physical activity, and experiences of violence. The data collected helps guide public health policies and programs aimed at improving health disparities in youth [7]. The participants were students from 4 regional universities located in the Southeast region of the United States. There were 604 participants ($N=604$) with a mean age of 19.8 years. Race and academic classification were self-reported. The classification breakdown is Freshmen ($n=219$), Sophomores ($n=169$), Juniors ($n=109$), and Seniors ($n=107$).

The classification breakdown is Freshmen ($n=219$), Sophomores ($n=169$), Juniors ($n=109$), and Seniors ($n=107$). An example of some of the survey questions is as follows:

- “How old were you when you had your first drink of alcohol other than a few sips?”
- “During the past 30 days, how many days did you have at least one drink of alcohol?”
- “During the past 30 days, how many days did you have 5 or more drinks of alcohol in a row, that is within a couple of hours?”

Results

Descriptive statistics of alcohol and binge drinking behaviors were calculated in Figure 1. A Dunn-Bonferroni Post-hoc analysis was used to identify significant differences between groups. When examining drinking behaviors, including binge drinking behaviors of the participants that were reported by classification ($n=604$), the number of students reporting binge drinking (3 or more drinks in one setting) was equal to or greater than the participants who reported drinking 1 or 2 drinks in one setting. Significant differences were found between Freshmen and Sophomores ($p=0.03$) and between Freshmen and Juniors ($p=0.042$).

When examining drinking behaviors and binge drinking with self-reported race in Figure 2, this study found that almost 70% of the White students ($n=480$) reported binge drinking. Additionally, a greater proportion of African American students reported binge drinking behaviors than 1-2 drinks in a setting. Furthermore, the Dunn-Bonferroni post-hoc analysis showed that Whites engaged in significantly more binge drinking than both African Americans ($p=0.001$) and Non-White / Non-African Americans ($p=0.001$).

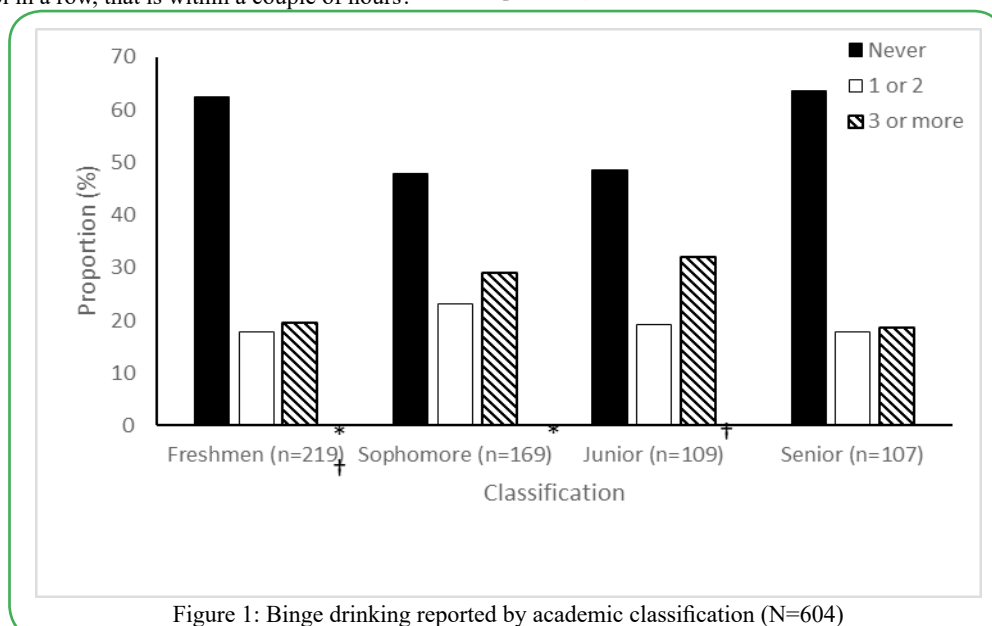


Figure 1: Binge drinking reported by academic classification ($N=604$)

Note: Overall p -value = 0.02 Dunn-Bonferroni Post-hoc analysis: Freshmen vs. Sophomores $p=0.03$ and Freshmen vs. Juniors $p=0.042$

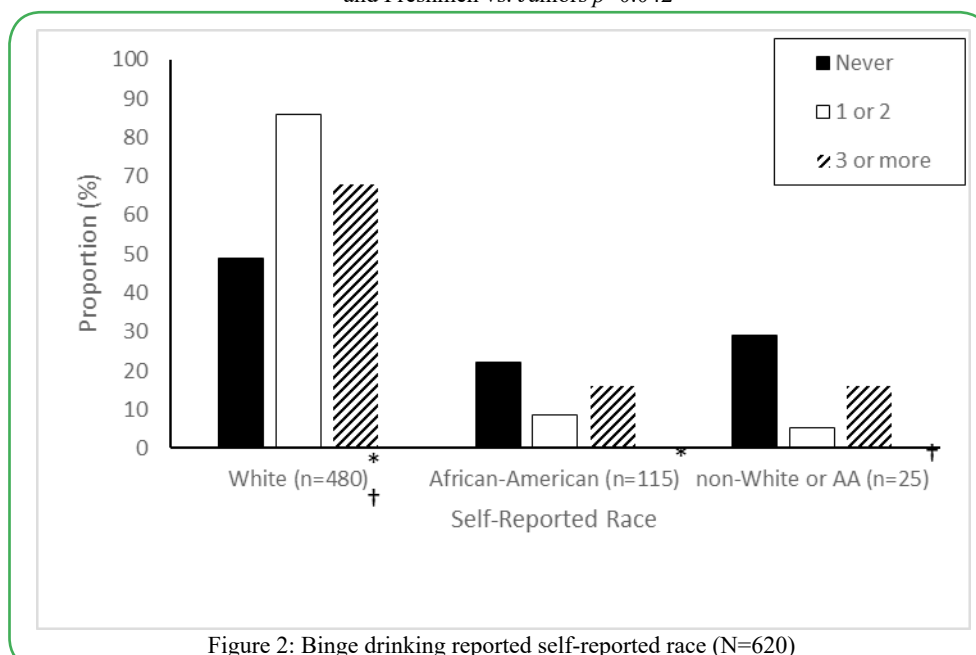


Figure 2: Binge drinking reported self-reported race ($N=620$)

Note: Overall p -value = 0.001 Dunn-Bonferroni Post-hoc analysis: White vs. African-American $p=0.001$ and White vs. non-White or African-American $p=0.001$

Discussion

Changing the culture of an institution is not an easy task. It would most definitely require that the expectations of college students need to be permanently altered to include individual attitude changes to reflect a new and different set of values. In other words, the intervention must come at the individual level for the effect to be felt at the institutional level. Individual type interventions can be grouped into the following categories: Educational awareness programs, cognitive-behavioral skills training, motivational interviewing, and behavioral interventions [8]. In essence, alcohol use and misuse at colleges and universities remain a complex issue, and much work is warranted in the area of prevention and intervention programming. Many universities already have alcohol intervention programs in place to help people at the individual level. For example, Penn State University has an evidence-based alcohol intervention program called BASICS, where students with alcohol related offenses are required to complete two one-hour sessions with a member of their Health Promotion and Wellness Department [9]. Essentially, BASICS aims to help students reduce risky drinking behaviors while giving them helpful information and tips to help control their drinking behaviors.

Abbreviations:

YRBS: Youth Risk Behavior Survey

NSDUH: National Survey on Drug Use and Health

AA: African American

Competing Interest: The authors of this research declare no competing interest regarding this study.

References

1. Parisi, C. E., Bugbee, B. A., Vincent, K. B., Soong, A. M., & Arria, A. M. (2019). Risks associated with alcohol and marijuana use among college student athletes: The case for involving athletic personnel in prevention and intervention. *Journal of Issues in Intercollegiate Athletics*, 12, 343. <https://pmc.ncbi.nlm.nih.gov/articles/PMC6777729/>
2. Holmes, F., Herchenroeder, L., Votaw, V. R., Frohe, T., & Yeung, E. W. (2025). The association between pain and negative alcohol-related consequences among college students engaged in binge drinking: The moderating role of reward and relief drinking motives. *Addictive Behaviors*, 108287. <https://doi.org/10.1016/j.addbeh.2025.108287>
3. Diez, K. S., Lew, K. M., Wood, R. J., Davis, F. M., & Hebert, E. P. (2003). Drug use behaviors among college athletes. *Louisiana Association for Health, Physical Education, Recreation, and Dance Journal*.
4. Larsen, K. D., Sirikul, B., Graves, M., Feirman, K. L., Brannagan, E., & Broussard, R. (2023). Drug and alcohol use in college athletes. *PriMera Scientific Medicine and Public Health*, 3(6), 23-27. <https://doi.org/10.51831/PSMPH-03-105>
5. Ranker, L. R., & Lipson, S. K. (2022). Prevalence of heavy episodic drinking and alcohol use disorder diagnosis among US college students: Results from the national healthy minds study. <https://doi.org/10.1016/j.addbeh.2022.107452>
6. Knettel, B. A., Cherenack, E. M., & Bianchi-Rossi, C. (2021). Stress, anxiety, binge drinking, and substance use among college student-athletes: A cross-sectional analysis. *Journal of Intercollegiate Sport*, 14(2). <https://doi.org/10.17161/jis.v14i2.14829>
7. Centers for Disease Control and Prevention. (2023). Youth Risk Behavior Surveillance System (YRBSS). <https://www.cdc.gov/healthyyouth/data/yrbs/index.htm>
8. National Institute on Alcohol Abuse and Alcoholism. (2025). Harmful and underage college drinking. U.S. Department of Health and Human Services, National Institutes of Health. <https://www.niaaa.nih.gov/publications/brochures-and-fact-sheets/college-drinking>
9. Penn State Student Affairs. (n.d.). Alcohol intervention (BASICS) program. <https://studentaffairs.psu.edu/alcohol-drug-education-recovery/alcohol-education-information/alcohol-intervention-basics-program>