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ALCOHOL AND AGGRESSION IN WVU STUDENTS

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Abstract

The current study hypothesized that there was a positive correlation between consuming alcohol and aggressive behavior among college students. A correlational research method was used to show relations between the factors influencing alcohol consumption and aggression. A survey was given to 74 undergraduate West Virginia University students. The survey was designed to measure verbal and physical aggression while sober and intoxicated, as reported by participants. A positive correlation was found between alcohol consumption and aggression among the sample. A significant main effect was found in the frequency of alcohol consumption and physical and verbal aggression.

Introduction

Alcohol consumption has become a normalcy within most college and university campuses for many students across the country. Binge drinking, associated with drinking large amounts of alcohol in one sitting, poses a threat to the well being of students across the country. Binge drinking is considered to be persistent drinking that produces a blood alcohol concentration higher than the legal limit of 0.08 (Dougherty, D. M., et. al., 2012). On average, males who consume five drinks or more and females who consume four drinks or more are considered to be binge drinking.

Students consuming heavy amounts of alcohol are in danger of aggression-related behavior associated with alcohol consumption. Heavy alcohol consumption has the potential to lower one's inhibitions,

as well as alter, how one might normally behave while not intoxicated. Quigley, Corbett, and Tedeschi (2002) suggest that alcohol intoxication can be linked with aggressive tendencies in both men and women. Supported research has shown that people under the influence of alcohol have a higher chance of becoming aggressive than people who are not under the influence of alcohol (Aviles, Earleywine, Pollock, Stratton, & Miller, 2005).

In one study, participants under the influence of alcohol and participants who had not consumed any alcohol were asked for their reactions to a simulated scenario, in which the researchers attempted to taunt the participants in hopes of gaining a response (Aviles, et al., 2005). Participants that were drinking alcohol not only acted in a more aggressive manner than sober participants, but they also had a greater response to the simulated scenario than sober participants (Aviles, et al., 2005). Alcohol changed the way intoxicated participants viewed the simulated scenario and heightened their levels of aggression.

While under the influence of alcohol, research has suggested that men and women may display aggressive behavior in the forms of verbal and physical aggression. Verbal aggression can be defined as a form of communication meant to cause another person some type of psychological hurt (Vissing, Y. M., Straus, M. A., Gelles, R. J., & Harrop, J. W., 1991). Physical aggression is said to be an intentional use of force to another person without any justification that results in distress or injury (Ferns, T., 2006).

Research has suggested that intoxicated men are more likely to act in a physically aggressive way than women. In particular, men are 8 to 11 times more likely to act in physical violence on days where they consumed alcohol as opposed to days when they consumed no alcohol (Moore, Elkins, McNulty, Kivisto & Handsel, 2011). In a study measuring the relationship between drinking and violence, men and women were asked to report the times they had been involved in an alcohol-related physical fight over the last year (Quigley, et al., 2002). The results of the study indicated that while both men and women had been involved in an alcohol-related fight, men were more likely than women to engage in a physical confrontation while under the influence (Quigley, et al., 2002).

Biological differences in men and women may also affect the way men and women display aggression. Giancola attempted to study the relationship between empathy and aggression in men and women (2003). The results concluded that having less empathy was a

contributing factor of aggression in men; however, women with varied levels of empathy saw little change in aggression outcome (Giancola, 2003).

In subsequent studies, researchers tried to explain the gender differences between men and women that may account for contrasts in aggressive behavior. A study conducted by Giancola et al. (2009), argued that men display patterns of “direct aggression,” while women tend to display patterns of “indirect aggression.” Direct aggression refers to physical forms of aggressive behavior and indirect aggression is representative of verbal aggression (Giancola et al., 2009). The patterns for these styles of aggressive behavior while intoxicated have been suggested to be a result of a combination of environmental factors. Giancola et al. (2009) suggested that factors, such as gender stereotypes, primed women to respond to aggression in a less confrontational manner than men. In addition, gender victimization has been linked to aggressive behavior in women while intoxicated. Victimized women have been shown to use alcohol to escape problems (Parks, Hsieh, Bradizza, & Romosz, 2008). Differences in cognitive functioning may also be associated with the variation in aggressive tendencies among men and women. On a whole, it has been found that alcohol is involved in 63% of violent crimes (Quigley, et al., 2002). Research conducted by Parks, et al., found that women might abuse alcohol to compensate for psychological disorders (2008).

These differences in gender and societal hierarchy may account for conflicted trends in aggressive behavior. This research was used in the current study to support the hypothesis that West Virginia University undergraduate women will show the tendency to be more verbally aggressive than West Virginia University undergraduate men while under the influence of alcohol. Adversely, West Virginia University undergraduate women may show the tendency to be less physically aggressive than West Virginia University undergraduate men while intoxicated. This research also shows that women have provided reasons for abusing alcohol that differs from those of men. Women may be abusing alcohol as a means of expression and escape from daily stressors or to compensate for psychological illness.

Another factor that may have contributed to the relationship between alcohol and aggression in men is perception. Research conducted by Levinson, Giancola, Parrott, and Dominic found participants who viewed aggression positively, showed more aggressive

behavior while intoxicated than participants with opposing views of aggression (2011). In this study, for example, power of perception influenced the outcome of participants' behavior. This suggested the notion that self-perception is strong enough to influence one's behavior. The current study attempted to find relations between self-perceived views of aggression and how alcohol consumption influenced aggressive behavior for the sample of West Virginia University undergraduate students.

For the purposes of this paper, the current study examined the influence that alcohol intoxication has on physical and verbal aggression in male and female West Virginia University undergraduates. The current study attempted to use these previous findings to support the hypothesis that West Virginia University undergraduate men may act in more physically aggressive ways than West Virginia University undergraduate women while under the influence of alcohol; West Virginia University undergraduate men may not act nearly as verbally aggressive as West Virginia University undergraduate women while intoxicated.

This study also aimed at understanding how self-perceived aggression influenced the behavior of intoxicated people; our study investigated the connection between self-reported aggressive traits and self-reported physical or aggressive behavior while intoxicated.

We hypothesized that there is a positive correlation between alcohol consumption and aggressive behavior among college students. A correlational research method was used to develop an understanding of the relationship between alcohol and aggression. The results yielded from this study will be beneficial in gaining insight into alcohol abuse and aggressive behavior on the West Virginia University college campus.

Method

Participants

Seventy-four West Virginia University undergraduate students (40 males, 34 females) participated in this study. Students from around the main campus were selected to complete the survey. Participants were asked to identify their rank in school including freshmen (7), sophomore (19), junior (31), senior (7), and second-year senior (10). The participants were asked to identify their age from 18 to 21 plus

years old (6 eighteen-year olds, 15 nineteen-year olds, 28 twenty-year olds, 12 twenty-one year-olds, and 13 over twenty-one year olds). Participants did not receive compensation for completing the survey.

Materials

The researchers used a four-page, 33 question survey to measure relations between alcohol and aggression. The first page of the survey measured three demographics questions that asked participants to identify their gender, age, and class rank. The first, second, and third pages of the survey used six questions to ask students about their alcohol consumption: usage, frequency, setting, and preference of alcoholic beverages. The first, second, third, and fourth pages asked 24 questions designed to measure aggressive behavior. These questions asked participants to identify various intimate details about their personality and aggressive tendencies while sober and intoxicated: frequency of happiness while sober and intoxicated, frequency of anger while sober and intoxicated, frequency of being outgoing while sober and intoxicated, likelihood of being verbally aggressive while sober and intoxicated, and likelihood of being physically aggressive while sober and intoxicated. See Appendix A for a copy of the survey used in this study.

Procedure

The survey was given to the participants in person. Participants were encouraged to complete all 33 questions. Participants answered all questions. Students that chose to participate in the study were ensured that confidentiality would be maintained throughout the course of the study. Students were told that the study would ask them to self-report their usage of alcohol, but were not informed that the study attempted to correlate alcohol usage and aggressive tendencies. The survey was completed by the participants in one sitting, upon supervision from the experimenters. The participants did not need help completing the survey.

Results

The mean score of the number of days that the participants consumed alcohol was 2.49 with a standard deviation of .78 (See Table 1). The mean amount of drinks that participants consumed at one sitting was 3.51 with a standard deviation of 1.09. The mean amount of verbal aggression reported by participants was 2.16 with a standard deviation of 1.24, while the mean amount of physical aggression reported by the participants was 2.36 with a standard deviation of 1.38.

The researchers hypothesized that there is a positive correlation between alcohol consumption and aggressive behavior among college students. A regression analysis was used to examine the hypothesis. Statistical significance was measured based on a p value of $p < 0.05$.

The model displayed a significant amount of variance in the physical aggression outcome variable (Adjusted $R^2 = 18.2\%$; $p = 0.001$). A significant main effect was found in the frequency of consuming alcohol; the more often men and women drink, the more likely they are to become physically aggressive ($\beta=0.393$, $p=0.001$). There was no significant main effect found in gender and physical aggression ($\beta= -0.067$, $p=0.541$). There was no significant main effect found in the amount of alcoholic drinks consumed at one sitting and physical aggression ($\beta= 0.116$, $p=0.312$).

The model displayed a significant amount of variance in the verbal aggression outcome variable (Adjusted $R^2 = 15.5\%$; $p=0.002$). A significant main effect was found in the frequency of consuming alcohol ($\beta=0.404$, $p=0.001$); the more often men and women drink, the more likely they are to become verbally aggressive. There was no significant main effect found in gender and verbal aggression ($\beta=0.044$, $p=0.688$). There was no significant main effect found in the amount of amount of alcoholic drinks consumed at one sitting and verbal aggression ($\beta=0.082$, $p=0.482$).

Discussion

The researchers hypothesized that there is a positive correlation between alcohol consumption and aggressive behavior among college students. Male and female college students are both likely to display physical and verbal levels of aggression while intoxicated, however,

gender differences may not account for the likelihood of verbal and physical aggression reported in men and women. According to previous research, men are noted to act in more physically aggressive ways while intoxicated, than women (Quigley, et al., 2002). Conversely, women have been shown to display indirect patterns of aggressiveness most commonly represented through verbal aggression (Giancola et al., 2009).

After testing the hypothesis, research supported that among our sample of West Virginia University undergraduate male and female students alcohol consumption was correlated to increased levels of aggression while intoxicated. The findings from our study indicate a strong positive correlation between alcohol consumption on the West Virginia University college campus and aggressive behavior while intoxicated. Significant main effects were found in the frequency of consuming alcohol and physical and verbal aggressive tendencies while intoxicated. However, no significant correlation was found between gender-specific aggression or the amount of drinks consumed and physical and verbal aggression.

This study was subject to several limitations. First, participants may have been influenced by social desirability. Self-report data often falls victim to social desirability, because the participants may feel a need to maintain a favorable image to the researcher or surrounding persons. Therefore, a participant may not answer questions as accurately as he or she may have, had it been taken without the researchers present. Questions with sensitive subject matter may also have been perceived as too personal for some participants to feel comfortable answering truthfully in front of the researcher. Furthermore, this study may have been more effective had participants been asked to self-report their age versus having to choose from the age ranges of 18, 19, 20, 21, and 21+. Upon further review of the self-report information, the age ranges of 21 and 21+ may have confused participants. This may have resulted in an inaccurate description of participants involved in the study. Lastly, students of the West Virginia University campus may not be representative of all students across the United States. The students that attend West Virginia University may share similar qualities or interests that encouraged them to attend West Virginia University, compared to other colleges across the country. Significant main effects in gender and aggressive tendencies may not have been found within this sample, because West Virginia University

campus culture may create an environment where aggressive behavior is thought of as acceptable regardless of gender. As a result, the verbal and physical aggressiveness findings may not be generalized to all college campuses.

This study was subject to several implications. These high levels of underage students can present a problem for the West Virginia University campus. Underage drinking, associated with binge drinking, is a growing epidemic on college campuses. The current study found that the more often West Virginia University students consume alcoholic beverages the more likely they are to act in physically and verbally aggressive ways. This may suggest that the likelihood of acting in a physically or verbally aggressive way while intoxicated will increase with the amount of days that students “party.”

Given the amount of riots that have occurred throughout the West Virginia University campus in the fall of 2012, West Virginia University would be able to use this study to further reinforce increased need for change around campus. West Virginia University should use this research to implement a solution to decrease the amount of underage drinking on campus. West Virginia University has used the fall of 2012 as an opportunity to eliminate “slum housing” in areas of Sunnyside, where sites for riots and couch burnings seem to be most popular. In addition, a solution for targeting future generations of underage drinkers may be to mandate incoming freshmen to participate in alcohol classes throughout the fall and spring of their freshman year. Incoming freshmen should also be required to take aggression classes offered through the university as a psychology course or through the West Virginia University Caruth Counseling Center. These classes would provide students with the resources necessary to learn to cope with aggressive or negative emotions.

This study opened the possibilities for future researchers to expound upon the results of this study. To further improve and expand on the research conducted in this study, an experiment may be most useful. The current study found that West Virginia University underage students were the majority of respondents to the survey. Future research should aim to create an experiment involving underage West Virginia University students. Although West Virginia University underage students cannot legally participate in an experiment where alcohol is given to participants, these students may be asked to participate in a study that measures their levels of verbal and physical

aggressive tendencies in manipulated scenarios. By focusing future research efforts on studying West Virginia University underage drinkers, research can help promote a safer campus by reducing underage drinking.

Future research may also consider creating a survey targeted to only underage- undergraduate West Virginia University students. Future research may take into consideration that the social desirability effect may threaten the accuracy of self-report questions. The current study may have prevented some social desirability effects if it had been offered in an online format. Future research may aim to make a survey that is only offered online, to prevent social desirability. To avoid confusion from participants, future researchers should design a survey that allows participants to self-report age.

Although the current study could benefit from future research, the findings presented in the current study have been significant. Binge drinking and underage drinking are problems on college campuses throughout the country. Binge drinking and underage drinking can impact the choices that students make while intoxicated. Intoxication can lead to aggressive behavior while intoxicated for both males and females (Quigley, et al., 2002). The findings presented in the current study find a positive correlation between alcohol consumption and aggression in male and female undergraduate West Virginia University students. A significant main effect was found in the frequency of consuming alcohol and physical aggression, and a significant main effect was found in the frequency of consuming alcohol and verbal aggression. These findings suggest that the more students consume alcohol, the more likely they are to become verbally and physically aggressive. West Virginia University should consider using the current study to fund educational alcohol and aggression classes around campus, to keep promote a healthier environment for current and incoming students.

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Appendix A

****Please circle the answer that you feel most accurately pertains to you. This is a completely anonymous and confidential survey. ****

1. Are you male or female?
 - a. Male
 - b. Female
2. How old are you?
 - a. 18
 - b. 19
 - c. 20
 - d. 21
 - e. 21+
3. What year are you at West Virginia University?
 - a. Freshman
 - b. Sophomore
 - c. Junior
 - d. Senior
 - e. Second Year Senior

For the following questions please know that we mean the standard legal alcohol serving size. 1.5 ounces of liquor OR 5 ounces of wine OR 12 ounces of beer counts as 1 alcoholic beverage. **

4. How many alcoholic drinks do you consume in an average sitting?
 - a. 0
 - b. 1-3
 - c. 4-6
 - d. 6-8
 - e. 8+
5. How many days a week do you consume alcohol?
 - a. 0
 - b. 1-2
 - c. 3-4
 - d. 5-6
 - e. 7
6. Where do you prefer to drink alcohol?
 - a. Bars
 - b. Clubs
 - c. House party
 - d. Fraternity / Sorority

- e. Small Gathering
 - f. By yourself
7. How outgoing do you consider yourself to be around new people when sober?
- a. Extremely sociable
 - b. Somewhat sociable
 - c. Neutral
 - d. Somewhat unsociable
 - e. Extremely unsociable
8. How outgoing do you consider yourself to be around new people when intoxicated?
- a. Extremely sociable
 - b. Somewhat sociable
 - c. Neutral
 - d. Somewhat unsociable
 - e. Extremely unsociable
9. How likely are you to get into a fight when angry and sober?
- a. Extremely likely
 - b. Somewhat likely
 - c. Neutral
 - d. Somewhat unlikely
 - e. Extremely unlikely
10. How likely are you to get into a fight when angry and intoxicated?
- a. Extremely likely
 - b. Somewhat likely
 - c. Neutral
 - d. Somewhat unlikely
 - e. Extremely unlikely
11. What alcohol are you most likely to drink?
- a. Liquor
 - b. Beer
 - c. Wine
12. How many times per week do you feel angry?
- a. 0
 - b. 1-2
 - c. 3-4
 - d. 5+
13. Do you consider yourself an angry person while sober?
- a. Yes

- b. Somewhat
 - c. No
14. Do you consider yourself an angry person when intoxicated?
- a. Yes
 - b. Somewhat
 - c. No
15. How many times a week do you feel happy?
- a. 0
 - b. 1-2
 - c. 3-4
 - d. 5+
16. Do you consider yourself a happy person when sober?
- a. Yes
 - b. Somewhat
 - c. No
17. Do you consider yourself a happy person when intoxicated?
- a. Yes
 - b. Somewhat
 - c. No
18. How many times have you seen a physical fight occur this year at West Virginia University?
- a. 0
 - b. 1-2
 - c. 3-4
 - d. 5+
19. How many times have you personally ever been in a physical fight this year at West Virginia University?
- a. 0
 - b. 1-2
 - c. 3-4
 - d. 5+
20. If you answered yes to question 19, had you consumed at least 1 alcoholic beverage when in the physical fight?
- a. Yes
 - b. No
 - c. Not applicable
21. When you get angry while sober are you more likely to act in a verbal or physically violent way?
- a. Verbal

b. Physical

c. Both

22. When you get angry while intoxicated are you more likely to act in a verbal or physically violent way?

a. Verbal

b. Physical

c. Both

23. Do you consider alcohol to play a key role in college life?

a. Yes

b. Somewhat

c. No

24. Which genders have you observed fighting most?

a. Male & Male

b. Male & Female

c. Female & Female

25. How much of your free time does drinking alcohol consume weekly?

a. 0 hours

b. 1-10 hours

c. 11-20 hours

d. 21-30 hours

e. 30+ hours

26. I am typically an even-tempered person.

a. Extremely uncharacteristic of me

b. Somewhat uncharacteristic of me

c. Neither characteristic nor uncharacteristic

d. Somewhat characteristic of me

e. Extremely characteristic of me

27. In the past I have threatened people I know while intoxicated.

a. Extremely uncharacteristic of me

b. Somewhat uncharacteristic of me

c. Neither characteristic nor uncharacteristic

d. Somewhat characteristic of me

e. Extremely characteristic of me

28. In the past I have threatened people I know while sober.

a. Extremely uncharacteristic of me

b. Somewhat uncharacteristic of me

c. Neither characteristic nor uncharacteristic

d. Somewhat characteristic of me

e. Extremely characteristic of me

29. I have become so mad that I have broken things when intoxicated.
- Extremely uncharacteristic of me
 - Somewhat uncharacteristic of me
 - Neither characteristic nor uncharacteristic
 - Somewhat characteristic of me
 - Extremely characteristic of me
30. I have become so mad that I have broken things while sober.
- Extremely uncharacteristic of me
 - Somewhat uncharacteristic of me
 - Neither characteristic nor uncharacteristic
 - Somewhat characteristic of me
 - Extremely characteristic of me
31. I get into fights a little more than the average person.
- Extremely uncharacteristic of me
 - Somewhat uncharacteristic of me
 - Neither characteristic nor uncharacteristic
 - Somewhat characteristic of me
 - Extremely characteristic of me
32. I would say that I get verbally aggressive by displaying loud noises, threatening others or cursing.
- Extremely uncharacteristic of me
 - Somewhat uncharacteristic of me
 - Neither characteristic nor uncharacteristic
 - Somewhat characteristic of me
 - Extremely characteristic of me
33. When irritated I display physical aggression more often than talking the problem out.
- Extremely uncharacteristic of me
 - Somewhat uncharacteristic of me
 - Neither characteristic nor uncharacteristic
 - Somewhat characteristic of me
 - Extremely characteristic of me

Table 1

Variables used to correlate aggression on the survey given to participants.

	Mean	Standard Deviation
Alcohol 1	3.51	1.09
Frequency	2.49	.78
Physical Aggression	2.36	1.38

Note. ^aAlcohol 1 is representative of the average serving size of alcohol consumed per sitting.

Verbal Aggression	2.16	1.24
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