

Young People Drinking: The Effect of Group Size on Drinking Habits

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Summary

This study examined the effect of group size on the drinking habits of young adults. Undergraduate students at Stony Brook University and high school students at St. John the Baptist Diocesan High School were surveyed with seven questions asking how often they drink alcohol and how many people are in their group when they consume alcohol. The hypothesis is that the larger the group size, the more frequently alcohol is consumed. Our results showed that the larger the group size, the more frequently alcohol was consumed in the high school and college populations. Other results showed that males drink alcohol more frequently than females and females drink less on average than males. We show an increase in frequency of alcohol consumption in college students as compared to high school students. This study suggests that intervention strategies should promote socialization in larger groups that is not centered on alcohol use to avoid potentially unhealthy drinking habits in young adults.

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Introduction

Drinking can lead to long-term problems in a young person's life (1). Research studies can help to identify patterns and ways to help teenagers stop drinking alcohol. By knowing what teenagers drink and when and with what risk factors, people can help to find ways to prevent teenagers from getting into trouble with alcohol (2). Studies that help us understand teenagers' patterns and motivations for drinking alcohol can lead to ways of preventing early alcohol abuse, thereby keeping young people healthy. This study is hypothesizing that group size is also an influence in drinking habits and exploring the relationship between group size and when students drink the most. At what age are young people drinking alone, how much are they drinking, and do small gatherings versus large crowds moderate their drinking habits differently? In addition, when do teenagers drink

the most - alone, in large crowds or small gatherings? The hypothesis is that the larger the group size, the more frequently alcohol is consumed. This hypothesis is based on previous research showing that outside influences affect young people's drinking patterns (3).

This study is exploring the background of young people who drink the most, so as to identify not only who drinks more, but also in what group size. Previous research has looked at a variety of factors affecting young adult drinking. Research has explored the motivations of teenage girls and studied whether teenage girls drink more to solve their problems and to make them feel better about themselves (2). The results of this study showed that alcohol drinking increased with psychological motivations such as problem-solving drinking motivations. These psychological motivations were defined as "unresolved problems or inadequacy of a psychological nature" (2). Another study examined how peer influence and masculine behavior affect adolescent alcohol use (4). Masculine behavior was defined as the drive for multiple sex partners, keeping emotions under control, the drive to win, and risk taking behavior. Results showed the same relationships of greater peer pressure and greater risk-taking with greater alcohol consumption among both girls and boys (4).

By the 11th and 12th grade, high school girls' tendency to binge drink already matches that of adult women aged 18-24 and 25-34 in the U.S. (1). Another study points to the relationship of early alcohol use (before age 13) and heavy drinking (5 or more drinks in a row) to physical fighting and suicide attempts (5). Studies like this one show the dangers of heavy drinking by young people and why understanding this behavior is important. Studying young people's patterns of drinking can help to identify ways to prevent or at least minimize alcohol use by young people.

Previous research does exist looking at the role of group size in alcohol consumption (6). For 30 days, 397 college students were studied and the results showed that drinking levels corresponded to the average drinking level of the people they are with during each drinking experience and second, socialization led people to consume greater amounts of alcohol as the size of the group grows larger (6). This study is in line with the previous work of established researchers.

Most of the other literature reviewed for this study points to other influences and characteristics, such as race or parenting style (7,8). This study will add

another dimension to young adult drinking influences by surveying a high school and college group to interpret a possible influence to why and when young adults drink the most alcohol. The present study will analyze under what circumstances young people aged 14-27 will drink the most. Do they drink alone, with 1-4 friends, or with more than 4 friends? It is hypothesized that young people, such as high school and college students, will drink most with more than 4 friends rather than alone or in small groups of 1-4. This study aims to build upon previous research in an attempt to identify young people at the most risk, consider male vs. female drinking behavior, and when and how to possibly help them avoid destructive alcohol drinking habits. Research on young people drinking in various group sizes can help to understand which setting presents the greatest risk for alcohol abuse.

Results

The results of our survey uncovered three key findings. First, the larger the group size, the more frequently alcohol was consumed by both males and females in both the high school and college populations. We analyzed the responses of the high school and college participants together. We used the responses from question 2 ('What is your sex?') and question 7 ('When do you drink the most alcohol?') and looked at sex and in what group size the participant drank the most alcohol. **Table 1** shows the larger the group size, the more the participant drank alcohol, independent of the participant's sex. For example, 42% of the participants drank the most alcohol with more than 4 people, while 32% drank with 1-4 people and 2% drank alone.

Table 1. Group size where students consume most alcohol. The larger the group size, the more alcohol is consumed by males and females.

Group Size	Percent of Participants
Never	24%
Alone	2%
1-4 people	32%
More than 4 People	42%

In addition, participants that consumed alcohol more frequently tended to consume it in larger groups (**Figure 1**). When students drank, whether "rarely", "2x/month", "every weekend", or "more than 1x/week", the most drinking occurred when the student was with more than 4 people.

Second, the older the participant, the more likely they were to drink alcohol. There were 95 students in our survey from the high school, aged 14-17 years old. Of this group 48% drank alcohol. There were 213 students from the university, aged 18-24 years old. Of this group, 88% drank alcohol (**Table 2**). Our results showed that a higher proportion of college students drink compared to high school students.

Third, we found that males drink more often than females in both participant populations. Females had a mean frequency of 2.22 (SD=1.04) and males had a mean frequency of 2.63 (SD=1.70). A frequency

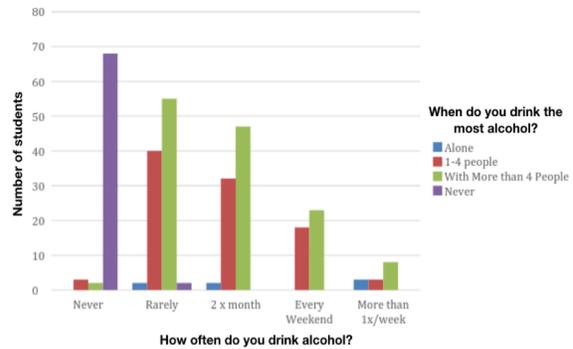


Figure 1. Bar chart showing relationship between how often participants drink alcohol and the group size in which they drink the most alcohol.

of 2 indicates a response for drinking "rarely" and a frequency of 3 indicates a response for drinking "twice a month". An unpaired t-test showed that these results were statistically significant ($p=0.0001$).

Table 2. Descriptive statistics of the high school and college study participants

	Total # Participants	# Females (%)	Mean Age (Range)	Drinkers (%)	Non-Drinkers (%)
High school	95	68 (71.6%)	15.3 (14-17)	46 (48.4%)	49 (51.6%)
College	213	84 (39.4%)	20.2 (17-24)	187 (87.8%)	26 (12.2%)

Discussion

This study's goal to study the effect of group size on the drinking habits of high school and college students has determined that those who drink greater amounts of alcohol in larger group sizes also drink more frequently in general. The hypothesis was that the larger the group size, the more frequently alcohol would be consumed and our results supported our hypothesis. This finding may tell us that both high school students and college students are highly influenced by their peer group. The more people that gather in a social group, the more likely they are to frequently consume alcohol. The results of the study are that young people drink more frequently in larger groups.

The data clearly shows that the proportion of college age students that drink alcohol is nearly twice the proportion of high school students that drink. This could be a reflection of decreased parental supervision in college. It is well known that alcohol consumption at the college level is a major health and safety issue (2). Increased enforcement of drinking age laws on college campuses may have a strong preventative impact on this problem.

The data also clearly shows that males on average consume alcohol more frequently than females. This may be an indication that young male culture promotes excessive drinking. These findings, along with those showing that more frequent alcohol consumption is usually done in larger groups, confirm previous work showing that greater peer pressure and greater risk-taking are associated with greater alcohol consumption

among both girls and boys (4). Interventions designed to help young males socialize without the use of alcohol may help combat this problem. Parents of all young people and especially young males need to be aware of the societal pressures that young people are exposed to.

In the context of existing literature, these findings added value to when high school students drink the most. This study is helpful from a preventative point of view to show that group size influences young adults drinking habits. For example, finding ways to help young people socialize in large settings not centered on alcohol might be beneficial. Sporting events or interactive activities where alcohol is not allowed might foster large group socialization skills among young adults. Further research might focus on comparing frequency of alcohol use in communities where large group gatherings occur without alcohol and comparing that to a community where these opportunities are lacking. This may lead to clear ways that we, as communities, can help to keep young people from drinking too much alcohol and in some cases becoming dependent on alcohol later in life.

Further research needs to be done to confirm our findings so that effective interventions can be designed to combat this issue. Ideas for future research could ask the volume or quantity of drinking or the motivation to drink more. The more we understand the profile of the young adults who drink, such as when they drink, why they drink and where they drink, the better we can find constructive ways to help prevent underage drinking.

Methods

Participants

Participants were recruited from the campuses of St. John the Baptist Diocesan High School located in West Islip, New York and State University of New York at Stony Brook located in Stony Brook, New York. Both of these institutions are located in Suffolk County on Long Island. There are approximately 1,200 students at St. John the Baptist Diocesan High School and 16,000 undergraduates at Stony Brook University. There were no exclusion criteria for age. Any participant needed only to be a student at either St. John the Baptist Diocesan High School or Stony Brook University. Respondents from St. John the Baptist Diocesan High School included 95 students, ages 14-17, and mean age 15.23 while respondents from Stony Brook University included 213 students ages 18-27, and mean age 20.20. Table 1 highlights the descriptive statistics of the high school and college study participants with 48% of the high school participants being drinkers and 88% of the college participants being drinkers. The survey was submitted with parental consent/permission forms at St. John the Baptist Diocesan High School.

Materials

The first and second author designed the survey in collaboration with the third author, who holds a faculty position at Stony Brook University. The survey had seven questions. The first asked the age of the participant and

the second asked the gender. The next five questions asked how often does the participant drink alcohol (never, rarely, twice a month, every weekend, more than once a week), during the past 30 days, how often do they drink (never, once, twice, more than three times) and the size of the social group gathered while drinking (never, alone, with 1-4 friends/people or more than 4 friends/people).

The way to test the hypothesis of the effect of group size on drinking habits of young people was to survey a sample of teenagers at a high school such as St. John the Baptist Diocesan High School and students at a college or university such as Stony Brook University. Questions in the survey included: How old are you? What is your sex? How often do you drink alcohol? In the past 30 days, how often did you drink alcohol alone? In the past 30 days, how often did you drink alcohol with 1-4 friends/people? In the past 30 days, how often did you drink alcohol with more than 4 friends/people? When do you drink the most alcohol? These are ways to determine if the size of a group affects a young person's drinking habits.

Procedure

Participants were chosen in the following ways. At St. John the Baptist Diocesan High School, students were offered three extra points on a science test if they brought home a Parental Consent/Permission form and returned the signed form in a timely manner. The high school students then met with the researcher during their lunch period and filled out the survey anonymously. At Stony Brook University, an instructor distributed the survey at the beginning of five classes of 60 students. No other further incentive was offered to the students. The students voluntarily filled out the survey, anonymously, and gave it to the instructor to collect. In the end, 308 surveys were collected from St. John the Baptist Diocesan High School and Stony Brook University. Identical surveys were distributed to all students. There was no time limit in completion of the survey, however most participants completed the survey within five minutes. The data in this study was analyzed by the SPSS software system at St. John the Baptist Diocesan High School.

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