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UNIVERSITY STUDENTS' PERCEPTIONS OF THE SEVERITY OF BINGE
DRINKING

By

Lauren E. Stone

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Community Health

Minnesota State University, Mankato

Mankato, Minnesota

May 2014

Date: _____

University Students' Perceptions Of the Severity Of Binge Drinking

Lauren E. Stone

This thesis has been examined and approved by the following members of the thesis committee:

Dr. Amy Hedman

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Abstract**UNIVERSITY STUDENTS' PERCEPTIONS OF THE SEVERITY OF BINGE DRINKING**

Stone, Lauren E., M.S. Community Health, Minnesota State University, Mankato, May 2014

The purpose of this research was to assess university students' perceptions of the severity of binge drinking. To assess university students' perceptions, a survey questionnaire was used. The survey looked at reported binge drinking behaviors by sampled college students and how serious they perceived consequences of binge drinking. A total of 270 students at Minnesota State University, Mankato participated in the research regarding binge drinking during spring semester 2014. The mean age was 19.8 years old, with a majority (70%) being freshmen and sophomores. Around 60% of females reported binge drinking within the last two-weeks of taking the survey, while around 50% of males reported binge drinking. There were no statistically significant differences in binge drinking based on the participants' age, gender, year in school, race or if they were a member of an organization on campus. A majority of participants (95.2%) reported that they believed 'causing another persons' death' to be very serious, while experiencing a hangover was perceived as not serious to slightly serious by most participants (77.8%).

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Chapter 1: Statement of the Problem

Introduction

“In 2008, 69.0% of U.S. college students, including those at both two-year and four-year institutions reported using alcohol in the past month” (Velazquez, Pasch, Laska, Lust, Story, & Ehlinger, 2011, p. 1353). Binge drinking, which is sometimes referred to as heavy episodic drinking, is a concern on college campuses. Consuming alcohol becomes defined as binge drinking when men have five or more drinks within a two-hour period and women have four or more drinks within that same time period (National Institute on Alcohol Abuse and Alcoholism [NIAAA], 2004).

Binge drinking can cause unintentional injuries to anyone choosing to engage in the drinking behavior. Around 600,000 students become injured accidentally while drinking each year (NIAAA, 2013). “Students who engage in heavy episodic drinking are at increased risk of a host of adverse consequences, ranging from problems with schoolwork to unplanned sexual activity, injury and sexual assault, problems with police or campus authorities and impaired driving” (Dawson, Grant, Stinson, & Chou, 2004, p. 477).

Background of the Problem

The U.S. Surgeon General and the U.S. Department of Health and Human Services have identified binge drinking as a major public health problem (NIAAA, 2005). According to the National Institute on Alcohol Abuse and Alcoholism “alcohol misuse on college campuses is not a new problem” (NIAAA, 2005, p. 2). College campuses around the United States have experienced alcohol-related problems such as drinking related

deaths and unintentional injuries (NIAAA, 2005). Students involved in drinking result in around 2,000 deaths happening each year (NIAAA, 2013), while about 600,000 students are injured due to alcohol use (Hingson, 2009).

In response to these alarming statistics, the National Institute on Alcohol Abuse and Alcoholism recommends strategies to decrease the amount of alcohol consumed on college campuses (NIAAA, 2013). Strategies that are shown to be effective include: providing alcohol education classes, informing parents when students have violated the campus alcohol laws, enforcing underage drinking and the zero-tolerance policy, and joining with local businesses to ensure access to alcohol is harder to achieve (NIAAA, 2013).

Statement of the Problem

Unintentional injuries and consequences occur on and around college campuses each year due to alcohol. Alcohol is the most commonly used substance among college students (Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994). The frequency to which students engage in binge drinking throughout the week increases their chances of becoming injured while drinking (Mundt, Zakletskaia, & Fleming, 2009). “Young adults have the highest prevalence of binge drinking in any age group” (Ham & Hope, 2003, p. 720) with about one-fourth of the United States young adult population claiming to be binge drinkers (Koenings, 2013).

Significance of the Problem or Need for the Study

Unintentional injuries, assaults and drinking related deaths are occurring on and near college campuses because of students’ binge drinking. Nearly 600,000 students are endangering themselves while binge drinking and enduring unintentional injuries as a

consequence every year. Also each year “An estimated 696,000 students between the ages of 18 and 24 are assaulted by another student who has been drinking” (NIAAA, 2013, p. 1). Around 2,000 students are victims of a fatality each year due to excessive drinking including car accidents (NIAAA, 2013).

The purpose of this study was to understand how serious students perceive the consequences of binge drinking. Understanding students’ perceptions of the consequences of binge drinking will help health educators develop interventions to educate students on the severity of binge drinking.

Research Questions and Hypotheses

The purpose of the study was to assess university students’ perceptions of the severity of binge drinking. The research questions for this study include:

1. What is the rate of binge drinking reported by sampled university students?
2. Does binge drinking among sampled university students differ based on gender, year in school, race, age, or social group membership?
3. What consequences of binge drinking are perceived serious among sampled university students?

Limitations

The limitations of this study are the following:

1. There was a limited amount of time to conduct the study since this study was done to fulfill the requirements for a Masters degree.
2. This study relied on self-report data; therefore the data may not be accurate. For example: students may have had a difficult time in recalling data about personal use of alcohol.

3. The participants recruited from health science classes may have been well informed about risks/consequences of binge drinking.

Delimitations

The delimitations of this study are the following:

1. Data collection was limited to only health science students attending Minnesota State University, Mankato; therefore results may not be generalizable to other students.
2. The available participants were between the ages of 18 and 24.
3. Data collection was confined to March of 2014.

Assumptions

The assumptions made within this study are the following:

1. Participants will understand the questions asked on the survey and answer truthfully.
2. Participants will vary on their perceptions on the seriousness of binge drinking consequences.
3. Participants may not perceive all consequences of binge drinking as serious.

Definitions of Terms

Binge drinking: The National Institute on Alcohol Abuse and Alcoholism (NIAAA) defines binge drinking as “patterns of drinking alcohol that bring blood alcohol concentration above or equal to .08%” (NIAAA, 2004, p. 2). For typical adults, to achieve a blood alcohol concentration at or above a .08 is on average, five (5) drinks for men, and four (4) drinks for women in a two-hour period (NIAAA, 2004)

Blackout: “To undergo a temporary loss of vision, consciousness, or memory (as from temporary impairment of cerebral circulation, retinal anoxia, a traumatic emotional blow, or an alcoholic binge)” (U.S National Library of Medicine, 2012)

Consciousness: “The totality in psychology of sensations, perceptions, ideas, attitudes, and feelings of which an individual of a group is aware at any given time or within a given time span” (U.S National Library of Medicine, 2012)

Construct: Is defined as, “A concept that has been developed, created, or adopted for use within a specific theory (Cottrell & McKenzie, 2011).

Pass Out: “To lose consciousness” (U.S National Library of Medicine, 2012)

Summary

University and college campuses are concerned with the amount of binge drinking occurring on campuses and the impacts it is having on their students (NIAAA, 2005). College-aged students are more likely than other groups to engage in binge drinking situations (Ham & Hope, 2003). Students engaging in binge drinking situations are experiencing consequences due to their drinking each year (Dawson, Grant, Stinson, & Chou, 2004). The main purpose of this research was to assess university students’ perceptions of the severity of binge drinking outcomes. In addition, this study assessed the prevalence of binge drinking reported by sampled college-aged students.

Chapter Two: Review of Related Literature

Introduction

As students enter college they are introduced to a variety of situations and binge drinking is one of them. Gathering more information on how students perceive binge drinking on college campuses is the main goal of this thesis. College students between the ages of 18 and 24 are consuming alcohol to an extent of which it is becoming a serious issue across the United States. Alcohol is the most commonly used recreational substance by young adults (Cross, Zimmerman, & O'Grady, 2009).

Within this review of literature there is a focus on how binge drinking is defined, along with the prevalence of binge drinking in college-aged students. This review of literature will also address the Health Belief Model as a framework for this research, the consequences related to binge drinking, students' perceived views of the severity of engaging in binge drinking and the harmful effects of binge drinking. Health education programs regarding binge drinking within college campuses will be the last section within this literature review.

Definition of Alcohol Consumption and Binge Drinking

Binge drinking is a common term with varying definitions. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) defines binge drinking as "patterns of drinking alcohol that bring blood alcohol concentration above or equal to .08%" (NIAAA, 2004, p. 2). For typical adults, to achieve a blood alcohol concentration at or above a .08 is on average, five (5) drinks for men, and four (4) drinks for women in a two-hour period (NIAAA, 2004, pg. 2). The Behavior Risk Factor Surveillance Survey,

(BRFSS) defines binge drinking similarly to the NIAAA with the exception of the time frame. The BRFSS considers binge drinking the same amount of drinks, five (5) for men and four (4) for women, per occasion within a 30-day range (Centers for Disease Control [CDC], 2010). The difference between the definitions involves the time frame of used to determine binge drinking; the NIAAA believes it to be within a 2-hour period, the BRFSS definition has a larger time frame of a 30-day period.

Research studies refer to binge drinking in different ways in regards to the amount of drinks consumed within a given time frame. However, most assume that binge drinking is drinking in an excessive way that could cause potential harmful consequences to the individual engaging in binge drinking (NIAAA, 2004; CDC, 2010).

The Prevalence of Binge Drinking in College-Aged Students

The frequency of binge drinking occurring in the United States is most evident in young adults compared to any other age group (Ham & Hope, 2003) with about one-fourth of the United States young adult population claiming to be binge drinkers (Koenings, 2013). “Between 1998 and 2005, college students self-reported more binge drinking than age-matched peers who were not attending college” (Koenings, 2013, p. 242). College campuses have a wide variety of students enrolled, with a lot of undergraduates under the legal age of consumption enrolled, yet alcohol continues to be the most widely used substance surrounding college campuses (Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994). Students who are attending college are often introduced to alcohol related situations making it a common setting to begin experimenting with alcohol use and eventually partaking in binge drinking (Koenings, 2013).

The American College Health Association-National College Health Assessment II conducted in fall 2009 found that “the mean quantity of alcoholic drinks that college students self-reported consuming the last time they ‘partied’ was 5 drinks (6 for males and 4 for females)” (Koenings, 2013, p. 242-243). In a study conducted by four United States institutions and one Canadian college, which was a part of CHIPS (College Health Intervention Project Study), college students who were 18 and older were surveyed regarding the amount of alcohol they consumed within a 28-day period. The study showed that males drank an average of six drinks per day for about ten days a month, averaging about 60 drinks within the one-month period that they were studied. The females studied reported an average of 36 drinks a month, averaging out to be about four drinks a day for nine times a month (Koenings, 2013).

Pertaining to Minnesota State University, Mankato students, drinking behaviors were assessed in spring of 2012 using the American College Health Association National College Assessment II. The research found that 76% of students had reportedly used alcohol within the last 30 days with 9.9% of students reported having 5 drinks in one sitting the last time they socialized (American College Health Association [ACHA], 2012).

Students who have engaged in drinking prior to entering into college are “more likely to continue drinking throughout college and into their adult lives” (Chiauzzi, DasMahapatra, & Black, 2013, p. 1). Students who believe that drinking in excess is normative for college students are more likely to engage in high-risk drinking and potentially develop alcohol-related problems (Chiauzzi et al., 2013). “The emerging alcohol consumption pattern of North American college students’ is increasing in heavy

episodic drinking, and decreasing in light drinking” (Koenings, 2013, p. 3). Binge drinking is a prevalent issue in today’s society surrounding college campuses with young adults partaking in binge drinking the most (Ham & Hope, 2003).

Health Belief Model

The Health Belief Model is a theoretical model that helps to describe and examine all different types of health-related behaviors (Cottrell & McKenzie, 2011). The Health Belief Model uses different constructs to explain different behaviors. The construct within the Health Belief Model that was used in this thesis was perceived severity (of binge drinking). The goal of this research was to gain insight about students’ perceptions on different drinking related situations and understand what they perceive as serious situations. Understanding how students’ perceive consequences of binge drinking could help future health educators to create different ways of promoting healthy drinking and reducing binge drinking.

Consequences of Binge Drinking

According to the research, The Sidewalk Survey, problems and consequences occurring because of alcohol use are serious public health threats on college campuses (Johnson, Lange, Voas, Clapp, Lauer & Snowden, 2006). Many students encounter the consequences of engaging in heavy alcohol use. The consequences vary from non-severe to extremely severe, if not fatal. “The misuse of alcohol by college students is associated with date rape and other violent behavior, poor academic performance, vandalism, injury, high-risk sexual behavior, and even death” (Johnson et al., 2006, p. 28).

Injuries and Deaths

Many alcohol-related injuries among students are unintentional or accidental. According to the National Institute on Alcohol Abuse and Alcoholism, nearly 600,000 students 18-24 years old succumb to an accidental injury each year due to alcohol use (NIAAA, 2013). Total deaths due to alcohol use in 2013 have increased; nearly 400 more deaths occur each year compared to 1998 data. An estimated 1,825 college students ages 18-24 die from alcohol-related injuries (Hingson, Zha & Weitzman, 2009; NIAAA, 2013) compared to around 1,400 students in 1998 (Dawson, Grant, Stinson, & Chou, 2004).

Academic Performance

Students who engage in binge drinking are at an increased risk of having academic issues (College Drinking Prevention, 2005). Around a fourth of all college students have endured academic consequences because of their drinking behaviors (NIAAA, 2013). Academic problems that occur because of drinking are, but not limited to, the following: missing class, forgetting to do homework, falling behind in classes, doing poorly on an exam or assignments and receiving lower grades than expected (NIAAA, 2013). According to College Drinking Prevention (2005), students who did well in high school often showed the effects of alcohol use in college and how it can affect academic performance.

Sexual Behavior/Sexual Assaults

Unprotected sexual activity is another consequence that occurs from over indulging in alcohol. The students who choose to drink heavily are more likely to engage in unplanned sexual activity, compared to those who choose not to engage in binge drinking (College Drinking Prevention, 2005).

Nonconsensual sex is another potential consequence of binge drinking and approximately 100,00 students each year do not recall if they gave permission to have sex or not while they were binge drinking (NIAAA, 2013). A report from the Commission on Substance Abuse at Colleges and Universities stated, “alcohol was involved in 9 out of 10 campus rapes” (Ross, Kolars, Krahn, Gomberg, Clark & Niehaus, 2010, p. 401). Roughly 70,000 college students report that alcohol has been involved at the time they were victims of nonconsensual sexual acts (College Drinking Prevention, 2005).

Physical Effects

A consequence of binge drinking behaviors can heavily impact a person’s physical health. According to Yeomans (2010), “Binge drinkers are shown to be more likely to be overweight or obese when consuming the same total amount of alcohol (7 drinks/week) than quantity-matched individuals with more drinking sessions (1 drink/day with 7 drinking sessions vs 7 drinks in 1 drinking session)” (p. 86). This means that individuals who binge drink rather than having a drink a day are more likely to be overweight. Since binge drinking is prevalent in college students (Ham & Hope, 2003), “Studies show that students on average gain 3 to 10 pounds during their first two years of college. Most of this weight can occur during the first semester of freshmen year” (Nemours Foundation, 2014, p. 1). Along with how drinking can effect a person’s weight, there can be long term health effects from drinking as well. Health effects that can occur because of drinking can be any of the following: high blood pressure, stroke, diabetes, liver disease, neurological damage, and cardiovascular diseases (CDC, 2012).

Impact on Others

Students who chose to engage in binge drinking are not only causing consequences to themselves but to individuals around them. Misusing alcohol can have an impact on many different individuals such as, friends of the drinker, neighbors, administrators, dorm counselors and others (NIAAA, 2005). College dormitories and campus facilities can also take the brunt of a student's night out drinking such which can lead to damaged property, vomit on school grounds and pulled fire alarms (College Drinking Prevention, 2005).

Binge drinking among students of different universities can have specific impacts on others involved. Financial costs to colleges are one impact binge drinking can have on others along with emotional stress to those caring for the individuals intoxicated. When alcohol use becomes an issue and students drop out of school, the university loses out on tuition costs from those students (NIAAA, 2005). Individuals dealing with drunk students have reported sleep disturbances, loss of study time and have had to use their own time to watch over the people who have drank too much (NIAAA, 2005).

Physical assaults are another consequence of drinking. Almost 700,000 students each year become a victim of assault by another individual who has consumed an excessive amount of alcohol (NIAAA, 2013). Physical assaults can vary by the degree of the assault, from tripping and pushing to punching and breaking bones. Regardless of the extent of the physical assault, many are influenced by alcohol use.

Perceived Seriousness of Binge Drinking

A recent study found that students view drinking as a positive experience more than a negative one (Logan, Henry, Vaughn, Luk, & King, 2012). While researchers rate

hangovers and blacking out sessions as negative outcomes of binge drinking, students tend to rate those negative outcomes as “less undesirable, more neutral, or even positive” (Logan et al., 2012, p. 312). When students experience those types of negative consequences, they seem to ignore them and continue to engage in the binge drinking patterns they have developed (Logan et al., 2012).

On the other hand, when students have positive drinking experiences it reinforces the potential reasons for drinking and seems to encourage the students to drink in the same manner (Logan et al., 2012). The researchers’ “findings indicated a ‘rich get richer’ relationship, where positive consequences were related to a greater perceived likelihood of continuing binge drinking and the appeal to binge drinking. Conversely, recent experiences of negative consequences were associated with viewing them as less negative and more likely to occur” (Logan et al., 2012, p.315). Ultimately the study portrayed that students who experience positive effects from drinking are going to continue drinking. The students who experience negative effects from drinking are still going to continue to drink and the drinker believes that the negative consequences will not get worse than they already have been (Logan et al., 2012).

Another study done in Europe looked at college students’ perceptions of the negative experiences that can occur because of drinking through collages created by students. The collages expressed students’ views on certain drinking experiences. The study showed the importance of research and how students are viewing the negative experiences of drinking. The researchers investigated students’ perceptions of the negative consequences so they can understand why binge drinking is continuing to occur despite the consequences that can happen. (Siemieniako & Kubacki, 2011).

Negative consequences of drinking include: academic problems, health problems, and engaging in risk taking behaviors (Siemieniako & Kubacki, 2011). When students were asked about binge drinking and its association with the impact it has on academic performance, some students believed drinking to have a positive connection with school (Siemieniako & Kubacki, 2011). The reasoning for this was that they believe when students get together to work on school assignments, it gives them a reason to drink. Also they feel a celebration can be in order after assignments or tests are over with, therefore leading to excessive drinking (Siemieniako & Kubacki, 2011).

Health problems were another negative experience that was investigated by the researchers. While the researchers listed many health problems, students felt different about the health consequences that can occur because of excessive drinking. Students perceived the health risks associated with drinking as “unimportant” and believed that drinking was just part of the college life (Siemieniako & Kubacki, 2011). The study discussed a collage that had images showing short-term effects of drinking such as throwing up or being hung over and how students perceived those images as something to laugh about while potentially taking pride in the idea that those things happen to them (Siemieniako & Kubacki, 2011).

In this study, risk taking behaviors was another category investigated when looking at the negative consequences in regards to binge drinking. Student responses about the collages regarding risk taking behaviors showed that students felt that alcohol consumption gave individuals courage to engage in behaviors that they might not do if they were sober (Siemieniako & Kubacki, 2011). They felt the drinking helped to begin sexual activities with other individuals and that was a motivator to drink (Siemieniako &

Kubacki, 2011). The students seemed to understand that alcohol can lead to unwanted sexual engagements and were concerned about the potential chance of pregnancies occurring (Siemieniako & Kubacki, 2011). Other outcomes they perceived as serious were injury and death due to drinking (Siemieniako & Kubacki, 2011).

Overall students seem to perceive consequences of binge drinking differently than the researchers do. While researchers are perceiving certain consequences as negative experiences, students tend to think differently about the experiences, often identifying them as positive experiences. Researchers are trying to understand why students do not perceive certain consequences as serious to in return, help them understand why students are continuing to engage in binge drinking.

Harmful Effects from Binge Drinking

In a study assessing negative consequences of alcohol use among college-students, researchers found that, “fifty-three percent of participants reported experiencing a hangover, 48% stated they had vomited as a result of drinking, 21% reported a regretted sexual experience, and 31% of participants stated they had blacked out as a result of drinking” (Mallett, Lee, Neighbors, Larimer & Turrisi, 2006, p. 4). Other findings from the study showed that when students experienced consequences from over indulging in drinking, they were not able to accurately report the number of drinks they had. Students tended to over report the number of drinks it took to experience certain consequences such as getting sick, memory loss, and engaging in unwanted sexual acts (Mallett et al., 2006). Therefore students are not able to predict accurately the amount of drinks it takes for them to experience consequences and ultimately it takes less drinks than they believe for those experiences to occur (Mallett et al., 2006).

Overall the study seems to show that experiencing negative consequences associated with excessive drinking may not deter individuals from heavy alcohol intake. One reason individuals may not perceive themselves at risk is that they are not able to accurately measure the amount of drinks they had when they had negative experiences, resulting in drinking the same amount of alcohol again (Mallett et al., 2006).

Health Education Programs Focused on Binge Drinking

Binge drinking is posing problems on college campuses and many efforts are being expended to reduce occurrences of binge drinking. The Centers for Disease Control recommend health education interventions targeting individuals who choose to drink and increase awareness of binge and underage drinking and the consequences that can occur. In addition they recommend strategies tailored to individuals to prevent excessive drinking (CDC, 2012).

Through a variety of programs, efforts are being made to prevent and reduce the amount of binge drinking that occurs on college campuses and around the U.S. These programs focus on individual school programs that the schools create themselves such as the Desire 2 Learn Alcohol and Drug Education Program at MSU, M., There is also a focus on a larger scale of programs, which are being done across many colleges such as programs which support the recommendations by the National Institute of Alcohol Abuse and Alcoholism (Wechsler, Kelley, Weitzman, Giovanni, & Seibring, 2000). College administrators' perceptions of the alcohol abuse problem on their campuses were positively associated with the comprehensiveness of their institution's education and prevention programs (Wechsler et al., 2000).

Wechsler et al., (2000), investigated administrators' responses to the alcohol-abuse problems occurring on their campus and prevention efforts employed. "Almost all schools (97%) provided general alcohol education programs, although proportionately fewer schools with small enrollments and institutions with religious affiliations did so" (Wechsler et al., 2000, p. 221). General education interventions were the most common method employed to prevent binge drinking within their campuses and ultimately all schools that were surveyed had this type of intervention within their school (Wechsler et al., 2000). Minnesota State University Mankato provides general alcohol education programs and requires first-year incoming students to participate in an online prevention course regarding alcohol use (Student Health Services, 2013).

The U.S. Department of Health and Human Services created a program 'Call to Action: Recommendations for Addressing Excessive College Drinking'. The Task Force on College Drinking created a set of guidelines for U.S. colleges to use when dealing with the issue of binge drinking on their campuses. The purpose of the recommendations was to help schools target their concerns related to drinking and use the recommendations of the Task Force to help address the needs at their schools. The recommendations consisted of three different components put into a framework guideline. "The components consisted of targeting: (1) individuals, including at-risk or alcohol-dependent drinkers, (2) the student population as a whole, and (3) the college and the surrounding community" (U.S. Department of Health and Human Services, 2002). The Task Force felt that each of these components, together and separately depending on the needs of the schools, could help to reduce the amount of binge drinking occurring on college campuses (U.S. Department of Health and Human Services, 2002).

Summary

Binge drinking is occurring all over the United States on a daily basis with about one-fourth of the young adult population reporting to be binge drinkers (Koenings, 2013). Engaging in binge drinking can have several consequences not only for the drinker but for surrounding individuals as well. “The misuse of alcohol by college students is associated with date rape and other violent behavior, poor academic performance, vandalism, injury, high-risk sexual behavior, even death” (Johnson et al., 2006, p. 28).

Students often view drinking as a positive experience (Logan et al., 2012). Colleges across the United States participate in alcohol education programs in efforts to inform students of what they should know before choosing to engage in binge drinking. Gaining an understanding of how college students perceive binge drinking consequences will inform health educators and researchers in creating effective ways to reduce the amount of alcohol-related incidences that occur on college campuses every year.

Chapter Three: Methodology

Introduction

Binge drinking among college students has been a growing issue on campuses all across the United States. “Alcohol use is highly prevalent among U.S college students, and alcohol-related problems are often considered the most serious public health threat on American college campuses” (Johnson et al., 2006, p. 27). College campuses have a wide variety of students enrolled, with many of undergraduates under the legal age of consumption enrolled, yet alcohol continues to be the most widely used substance surrounding college campuses (Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994).

The purpose of this research was to understand university students’, ages 18 to 24 years old, perceptions of the seriousness of binge drinking. Along with understanding how college students perceive the seriousness of binge drinking, this study also gained insight on the prevalence of binge drinking among students at Minnesota State University Mankato. Furthermore this research examined how different characteristics of an individual such as: age, gender, year in school, and race relate to the amount of binge drinking that was reported by selected students. The information from this research contributed to the understanding the binge drinking rate among the sampled students and how serious they perceived certain drinking consequences to be.

Research Design

This research study was designed to answer the following questions:

1. What is the rate of binge drinking reported by sampled university students?

2. Does binge drinking among sampled university students differ based on gender, year in school, race, age, or social group membership?
3. What consequences of binge drinking are perceived serious among sampled university students?

The study utilized a cross-sectional survey using descriptive and quantitative statistics as part of the research design. The goal of this research was to gain insight about students' perceptions on different drinking related situations and understand what they perceived as serious situations.

Subject Selection

After receiving approval from the Institutional Review Board (IRB) (see Appendix A), participants of the study were selected via a convenience sample of general education classes chosen within the health science department during spring semester 2014 at Minnesota State University, Mankato. The classes chosen were Health and the Environment (101), First Aid and CPR (210), and Consumer Health (212). The participants received the surveys in their classrooms and were given time during class to complete the survey. Eligible student participants were between the ages of 18-24. The desired sample size to complete data collection was 300 students. Completion of the survey was completely voluntary and their decision to participate did not impact their grades or other relationships with MSU, M as in the IRB consent form (see Appendix D).

Instrumentation

To conduct this research, a written survey was developed based on the College Alcohol Study Questionnaire used for the Harvard School of Public Health College Alcohol Study (2005) (See permission in Appendix B). Questions seven through ten (see

Appendix E) were used from the College Alcohol Study Questionnaire and pertained to personal alcohol use such as how much the individual drank, how long it took them to drink, and what type of drinks they were drinking. The researcher added one question (question six) specifically to measure binge drinking among women. Also, the researcher developed a table for students to rate how serious they perceived certain consequences of binge drinking. An example of a consequence from the table would be, “impacting school attendance”. The participants had four options to choose from on the scale, which ranged from not serious at all to very serious. The survey also included certain demographic questions regarding their age, year in school, gender, race, and if students had been involved in certain social groups.

To increase content validity, an expert panel ($n = 3$) reviewed the survey for content validity (see Appendix C). After taking into consideration what the experts said some wording choices were changed. Next, the researcher conducted a pilot study on a group of 40 students. The pilot study was designed to identify whether the participants understood the questions. After reviewing the pilot study results and the comments that were made, there were no changes made to the survey.

Data Collection

After receiving permission from the Institutional Review Board and the instructors of the courses, the data collection took place. Data was collected during the first week of March during the 2014 spring semester at Minnesota State University, Mankato. The data was collected through written surveys distributed by the researcher to a variety of health science classes (Health 101 Health and the Environment, 210 First Aid and CPR and 212 Consumer Health) at MSU, M.

Data Processing and Analysis

Data processing and analysis was done using descriptive analysis techniques. For the analysis of data, Statistical Packaging for Social Sciences, also known as SPSS was used. The Table of Specifications (Table 3.1, Appendix F) describes each research question and the selected analysis for the corresponding survey items. Survey questions six through ten were used to assess research question number one (reported binge drinking by selected college students) and descriptive analysis was used. Survey questions one through five were used to assess research question number two (differences among binge drinking based on age, year in school, race, gender, and membership of an organization) and Non-Parametric tests were used for analysis. Lastly, the table regarding potential consequences of binge drinking used was to assess research question number three (college students' perceptions on the severity of binge drinking consequences) and descriptive analysis was used to analyze how the participants perceived the consequences from not serious to very serious.

Summary

In this chapter the methodology for this research on binge drinking in college-aged students was described. Students were surveyed about personal alcohol use, and how they perceived certain binge drinking consequences in order to answer research questions. This chapter provided information regarding, subject selection, how the research was conducted, and how the data was analyzed.

Chapter 4: Results and Discussion

Introduction

The purpose of this study was to assess university students' perceptions of the severity of binge drinking. For this study, the survey instrument used was the College Alcohol Study created by Harvard School of Public Health. Henry Wechsler, Elissa Weitzman, and Toben Nelson are all investigators of the College Alcohol Study. Along with questions from the College Alcohol Study, the researcher also created three questions for the survey. The survey consisted of questions regarding binge drinking behaviors and how participants perceived consequences related to binge drinking.

This chapter reports the findings of the research. Analysis was done using Statistical Packaging for Social Sciences (SPSS). The results will begin with descriptive statistics of reported binge drinking behaviors of selected college students. Following that will be results regarding the how binge drinking differs by gender, year in school, race, age and social group membership, analyzed using nonparametric tests. Lastly, results will be presented showing how students perceive the severity of binge drinking. This will be done using descriptive statistics.

Questions to be Answered

The following research questions were used to direct the study: (1) What is the rate of binge drinking reported by sampled university students? (2) Does binge drinking among sampled university students differ based on gender, year in school, race, age or social group membership? (3) What consequences of binge drinking are perceived as serious among sampled university students?

Demographics

Out of 270 participants, 49.6% ($n = 134$) were male and 50.4% ($n = 136$) were female. The age ranges of participants were between 18 to 24 years of age. The mean age of participants was 19.8 years old. The majority of participants were either in their first (freshmen) year of school (37.4%, $n = 101$), or second (sophomore) year of school (32.2%, $n = 87$). Ethnic origin (race) was categorized into five different races with 'Other' being the sixth option. The majority of participants, 80.7% ($n = 218$) associated themselves with being white (Caucasian), with the next highest being black (African American) at 9.6% ($n = 26$). Participants' were asked which social organizations they were members of and a majority reported none 57.8% ($n = 156$). Table 4.1 shows all of the statistics for the demographic characteristics of the participants.

Table 4.1

Demographics

Characteristics	N	%
Age		
18	46	17%
19	83	30.7%
20	64	23.7%
21	45	16.7%
22	18	6.7%
23	10	3.7%
24	4	1.5%
Gender		
Male	134	49.6%
Female	136	50.4%
Year in School		
Freshmen	101	37.4%
Sophomore	87	32.2%
Junior	42	15.6%
Senior	33	12.2%
5 th Year	7	2.6%
Graduate	0	0.0%
Ethnic Origin		
White	218	80.7%
Black	26	9.6%
Asian/Pacific Islander	12	4.4%
Hispanic	8	3.0%
American	0	0.0%
Indian/Alaskan Native		
Other	2	0.7%
Social Group Membership		
Fraternity	2	0.7%
Sorority	5	1.9%
MSU Athletic Team	12	4.4%
Performing Arts	3	1.1%
Intramural/Club Sports	51	18.9%
None	156	57.8%
Other	24	8.9%

Question One: What is the rate of binge drinking reported by sampled university students?

According to the Centers for Disease Control and the Behavior Risk Factor Surveillance Survey, (BRFSS) binge drinking is considered five (5) drinks for men and four (4) for women per occasion within a 30-day range (Centers for Disease Control, 2010). For the purpose of this study, the researcher asked participants about the past two weeks of personal consumption. Participants were asked the number of times they engaged in drinking at least four (4) drinks in a row for females, and five (5) drinks in a row for men.

Descriptive analysis and cross tabulation was run to determine the rate of binge drinking reported by sampled university students. The analysis revealed that around 60% of females surveyed engaged in binge drinking at least once during the two-week period and around 50% of males engaged in binge drinking (see Table 4.2).

Table 4.2

Reported Binge Drinking Within a Two-Week Period Among Sampled University Students

Item	None n(%)	Once n(%)	Twice n(%)	3 to 5 n(%)	6 to 9 n(%)	10 or more n(%)
Female	55(40.4)	27(19.9)	24(17.6)	26(19.1)	3(2.2)	1(0.07)
Male	64(47.8)	24(17.9)	13(9.7)	25(18.7)	8(5.9)	0(0.0)

n = 136, Female

n = 134, Male

Question Two: Does binge drinking among sampled university students differ based on gender, year in school, race, age or social group membership?

The researcher transformed survey questions six (6) and seven (7) to provide one measure of binge drinking. If females reported consuming four (4) or more drinks in the past two weeks than they were considered to be binge drinkers. Similarly, for males, if they reported consuming five (5) or more drinks in the past two weeks than they were considered to be binge drinkers. Nonparametric tests were used to determine whether binge drinking differed among gender, year in school, race, age and social group membership. The Kruskal-Wallis and Mann-Whitney tests were used to analyze the ordinal and nominal data. To identify whether there was a statistically significant difference among the groups tested, the significance level was .05.

The first set of data that was tested was concerning whether binge drinking differed among males and females. Analysis showed there was no statistically significant differences among men and women and the amount of binge drinking that occurred. When students were asked about the last two weeks of drinking four (4) or more drinks in a row there was no significant difference among males and females reports. Next tested were five (5) or more drinks in a row in the last two weeks and there was a significant difference between males and females. More males consumed five (5) or more drinks in a row in a two-week period than females. The mean rank for men was 145.22 ($n = 134$) compared to females at 125.92 ($n = 136$).

When reviewing the data for year in school, looking at both four (4) and five (5) drinks consumed in a two-week period depending on the gender of the participant, there was no statistically significant difference between what year in school each student was

in. Next, race was looked at. Among all of the ethnic groups tested, there was no statistically significant difference between binge drinking and self identified race.

The researcher focused on university students between the ages of 18 and 24 years old. Participants were asked to hand write their age into the designated area. Participants who stated their age was over 24 years were not included in the analysis. Non-parametric analysis concluded that there were no statistically significant difference among ages in regards to consuming four (4) drinks or five (5) drinks in a row within a two-week period. Further research was not conducted to determine which age created the significant difference because it would create too high of an error rate and contradict the purpose of the research. Lastly, membership of different organizations was analyzed to determine if students' who were members of different organizations were more likely to binge drink. From the analysis, there was no statistically significant difference of binge drinking by organizational membership.

Question Three: What consequences of binge drinking are perceived serious among sampled university students?

Descriptive statistics were used to analyze which consequences were perceived serious among sampled university students. Participants were asked to fill out a chart with different consequences located on the left side column, with the rating system beginning with “not serious” on the left side column to “very serious” on the right side column of the chart (see Appendix E).

Results showed that out of the 270 participants surveyed, 257 (95.2%) rated causing another persons death very serious. From all of the consequences shown, causing another persons death was rated very serious the most out of all participants. The

consequence that had the highest number of not serious ratings was experiencing a hangover. One hundred and four (38.5%) individuals rated this consequence as not serious, while 106 (39.3%) rated this consequence slightly serious.

The top five (5) consequences, beginning with the highest percentage of participants perceiving the consequence as very serious were the following: causing another persons' death (95.2%), getting a DUI (driving under the influence) (91.1%), damage to the brain (80.4%), having nonconsensual sex (78.5%), and being arrested by law enforcement (77.4%). The top five consequences perceived least serious or not serious, were the following: experiencing a hangover (38.5%), gambled money (11.1%), passing out (10.0%), forgetting what you said/did (9.3%), and becoming disoriented/getting lost (7.0%).

An interesting finding was related to the responses regarding the seriousness of getting amnesia, blacking out, and forgetting what you said/did. In general, those three consequences are very similar. Fifty percent ($n = 134$) of participants classified getting amnesia as very serious along with blacking out ($n = 133$), while only 19% ($n = 51$) considered forgetting what you said/did to be very serious. Another interesting finding was related to responses for the consequences of losing consciousness and passing out. Again, these two consequences are the same, just phrased differently. Sixty Six percent ($n = 179$) of participants found losing consciousness to be very serious, while only 32% ($n = 87$) found passing out to be very serious. Further findings can be found in Table 4.3.

Table 4.3

Perceptions of Consequences of Binge Drinking Among University Students

Item	Not Serious n(%)	Slightly Serious n(%)	Moderately Serious n(%)	Very Serious n(%)	Missing n(%)
Experiencing a hangover the next day	104(38.5)	106(39.3)	48(17.8)	11(4.1)	1(0.4)
Damage to the brain	7(2.6)	4(1.5)	40(14.8)	217(80.4)	2(0.7)
Impacting school attendance	16(5.9)	42(15.6)	107(39.6)	105(38.9)	0(0.0)
Getting into a physical fight	18(6.7)	52(19.3)	98(36.3)	102(37.8)	0(0.0)
Getting amnesia	15(5.6)	38(14.1)	80(29.6)	134(49.6)	3(1.1)
Getting a DUI (driving under the influence)	8(3.0)	4(1.5)	11(4.1)	246(91.1)	1(0.4)
Losing consciousness	7(2.6)	18(6.7)	65(24.1)	179(66.3)	1(0.4)
Impacting course grades	12(4.4)	23(8.5)	94(34.8)	140(51.9)	1(.04)
Getting an underage drinking ticket (minor)	17(6.3)	41(15.2)	75(27.8)	134(49.6)	3(1.1)
Becoming disoriented/getting lost	19(7.0)	45(16.7)	102(37.8)	104(38.5)	0(0.0)
Having unprotected sexual relations	11(4.1)	19(7.0)	73(27.0)	166(61.5)	1(0.4)
Blacking out	11(4.1)	34(12.6)	91(33.7)	133(49.3)	1(0.4)
Being arrested by law enforcement	8(3.0)	10(3.7)	43(15.9)	209(77.4)	0(0.0)
Getting injured	9(3.3)	35(13.0)	97(35.9)	129(47.8)	0(0.0)
Being a victim of assault	8(3.0)	11(4.1)	43(15.9)	208(77.0)	0(0.0)
Getting alcohol poisoning	7(2.6)	11(4.1)	54(20.0)	198(73.3)	0(0.0)
Having nonconsensual sex	10(3.7)	8(3.0)	38(14.1)	212(78.5)	2(0.7)

Item	Not Serious n(%)	Slightly Serious n(%)	Moderately Serious n(%)	Very Serious n(%)	Missing n(%)
Taking other drugs/substances with alcohol	11(4.1)	16(5.9)	68(25.2)	174(64.4)	1(0.4)
Forgetting what you said/did	25(9.3)	82(30.4)	111(41.1)	51(18.9)	1(0.4)
Gambled money	30(11.1)	69(25.6)	95(35.2)	76(28.1)	0(0.0)
Passing out	27(10.0)	62(23.0)	94(34.8)	87(32.2)	0(0.0)
Causing a motor-vehicle accident	8(3.0)	1(0.4)	10(3.7)	251(93.0)	1(0.4)
Having to go to a detoxification facility	8(3.0)	14(5.2)	55(20.4)	192(71.1)	1(0.4)
Losing personal items including money	10(3.7)	49(18.1)	102(37.8)	108(40.0)	1(0.4)
Causing another person's death	8(3.0)	2(0.7)	3(1.1)	257(95.2)	0(0.0)
Vandalism/Property destruction	8(3.0)	18(6.7)	81(30.0)	160(59.3)	3(1.1)

Summary

The purpose of this study was to understand university students' perceptions of the severity of binge drinking. Other important research done throughout this study focused on binge drinking rates among sampled university students and whether binge drinking differed by demographic characteristics. Two hundred and seventy students participated in the study, taking place at Minnesota State University, Mankato.

Among the participants surveyed, around half were female ($n = 136$) and half were male ($n = 134$). A majority of them were Caucasian, (80.7%, $n = 218$) and the majority were either 18 or 19 years old (54.4%, $n = 147$). Most participants (69.6%, $n = 188$) were in either their freshmen or sophomore year of school. Around 60% of

students sampled were not involved in any type of student group membership organization.

Since there is a difference between the amounts of drinks it takes for women to be considered binge drinkers compared to men, the reported binge drinking measure among selected college students differed between men and women. For research purposes the researcher focused on four (4) drinks for females, and five (5) drinks for males when analyzing the data. Results showed that 60% ($n = 81$) of females surveyed reported binge drinking while only 50% ($n = 70$) of males reported binge drinking. When comparing the amount of drinking between males and females, testing with both four and five drinks, there was a statistically significant difference between men and women and consuming five (5) or more drinks in a row. Men show higher numbers in to consuming five (5) or more drinks in one sitting compared to women. There was no statistically significant difference between year in school, race, age, or social group membership.

The next chapter will discuss the study as a whole and discuss future recommendations for research and health education.

Chapter 5: Summary, Conclusions, and Recommendations

Summary

Binge drinking is a prevalent problem across the United States on many college campuses (Johnson et al., 2006, p. 27). Since it is a prevalent problem, binge drinking leads to harmful consequences to many individuals. The purpose of this study was to understand how serious university students' perceive binge drinking consequences. The researcher found that students are engaging in binge drinking at Minnesota State University, Mankato. Females reported binge drinking more than males by 10%. The researcher did not find any statistically significant difference based on the participants age, year in school, gender, race, or if they were members of an organization on campus. Participants perceived potential consequences of binge drinking based on a scale of "not serious" to "very serious". A majority of participants (95.2%, $n = 257$) perceived causing another persons death as very serious. A consequence that was perceived as not serious or slightly serious by a majority of participants (77.8%, $n = 210$) was experiencing a hangover.

Conclusions

From the literature review, "Between 1998 and 2005, college students self-reported more binge drinking than age-matched peers who were not attending college" (Koenings, 2013, p. 242). Based upon the study data collection, over half of students' ages 18-24 years old reported binge drinking. Overall, 60% of female participants indicated binge drinking at least once during a two-week period, while 50% of males indicated binge drinking during a two-week period. While male and females differ based on their binge drinking criteria, four (4) drinks for females, five (5) drinks for males,

approximately 20% of both male and females sampled reported engaging in binge drinking of four (4) or five (5) drinks three to five times within a two-week period.

Research question three was the primary focal point of the research that is to understand how students perceived the consequences of binge drinking. For the most part, most consequences were perceived as serious among the participants. Causing another persons death was a consequence that 95% of participants perceived as very serious. The consequence of experiencing a hangover was perceived as not serious to slightly serious by 80% of participants. Based on past research, there has been little done on how students perceive consequences of binge drinking. Consequences such as experiencing a hangover are sometimes looked at as the 'norm' and students may laugh about it and be proud of the fact that they received a hangover from drinking (Siemieniako & Kubacki, 2011).

Recommendations

Recommendations for future research

Future recommendations for conducting a study would be to administer the survey online to the entire university population to receive a larger response rate. There were limitations that restricted the research from reaching its full potential. The researcher limited the amount of responses because of the focus on general education classes and did not take into account the number of students that would be absent from the researched classes. Another recommendation is to assess how participants felt about the consequences in a different way so individuals would not misunderstand the chart and rate them in an incorrect manner.

Much research has been done about binge drinking and understanding how many individuals are engaging in binge drinking. It is also important to focus on college students' understanding of what binge drinking actually means and if they are aware of the fact that they are engaging in binge drinking. The researcher also believes that more research should be done on how students perceive the consequences of binge drinking. To better assess the responses of how students perceive binge drinking consequences, students should be asked to rate the consequences in order of how serious they believe they are. Along with that, students should be given a variety charts with different categories of consequences such as, academic consequences in one chart, criminal consequences in another, health consequences in another, and so on. Splitting them into categories would give a more accurate portrayal of what they perceive as very serious, and what they do not perceive as serious of a consequence of binge drinking.

Finally, the researcher recommends that further research be done on health education programs focusing on binge drinking on university campuses directed towards all students instead of just incoming freshmen. Much has been done on general education classes provided, but it is important to focus on the school as a whole to reduce the rates of binge drinking on and around each campus.

Recommendations for health education

Educating on what binge drinking consists of and how many drinks it takes to be considered a "binge drinker" is a simple way to inform students so they are aware of what it really means. Students are going to drink despite the information that they have been taught but it is important for them to understand that it is possible to drink in a smart way without enduring consequences. Instead of always educating students on the poor choices

that come along with drinking and how bad drinking can be, it is important to educate them on responsible drinking behaviors.

Many schools, along with Minnesota State University, Mankato require incoming freshmen to engage in an informational session about drinking (Student Health Services, 2013). A key point for health educators is to not just focus on incoming freshmen but to focus on all students, campus wide. As the research showed there was no significant difference between binge drinking and year in school so it is not just freshmen that are the ones who need education on drinking. It is important for students, whether freshmen or seniors to be reminded about making smart choices when it comes to drinking.

Lastly, the researcher would recommend educating students on the consequences of binge drinking, especially consequences that may not be perceived as serious as other consequences. Consequences that individuals endure due to their drinking are affecting themselves and others around them. Whether it is to their body such as experiencing a hangover or forgetting what was said/did are consequences of binge drinking and are less likely to happen if drinking was not involved. Education is key in reducing the number of consequences of binge drinking from occurring.

References

- American College Health Association. (2012). *American college health association national college health assessment II*. Minnesota State University Mankato, Mankato, Minnesota, .
- Centers for Disease Control and Prevention. (2010). Vital signs: Binge drinking among high school students and adults. *59*(39), 1274-1279.
- Centers for Disease Control and Prevention. (2012). *Alcohol and public health*. Retrieved from <http://www.cdc.gov/alcohol/about.htm>
- Centers for Disease Control and Prevention. (2012, November 07). *Fact sheets-binge drinking*. Retrieved from <http://www.cdc.gov/alcohol/fact-sheets/binge-drinking.htm>
- College Drinking Prevention. (2005). *Surveying the damage: Consequences of college student alcohol abuse consumption*. Retrieved from http://www.collegedrinkingprevention.gov/niaacollegematerials/panel01/highrisk_04.aspx
- Cottrell R., & McKenzie, J. (2011). *Health promotion & education research methods*. (2nd ed.). Sudbury, MA: Jones and Bartlett Publishers.
- Chiauzzi, E., DasMahapatra, P., & Black, R. A. (2013). Risk behaviors and drug use: A latent class analysis of heavy episodic drinking in first-year college students. *Psychology of Addictive Behaviors*, doi.org/10.1037/a0031570
- Cross, J. E., Zimmerman, D., & O'Grady, M. A. (2009). Residence hall room type and alcohol use among college students living on campus. *Environment and Behavior*, *41*(4), 583-603. doi:10.1177/0013916508328169

- Dawson, D. A., Grant, B. F., Stinson, F. S., & Chou, P. S. (2004). Another look at heavy episodic drinking and alcohol use disorders among college and noncollege youth. *Journal of Studies on Alcohol, 65*, 477-488. Retrieved from <http://ezproxy.mnsu.edu/login?url=http://search.proquest.com/docview/620487336?accountid=12259>
- Harvard School of Public Health, Henry Wechsler (2005), *College alcohol study*
- Ham, L. S., & Hope, D. A. (2003). College students and problematic drinking: A review of the literature. *Clinical Psychology Review, 23*, 719-759.
[doi.org.ezproxy.mnsu.edu/10.1016/S0272-7358\(03\)00071-0](http://doi.org.ezproxy.mnsu.edu/10.1016/S0272-7358(03)00071-0)
- Hingson, R., Zha, W., & Weitzman, E. (2009). Magnitude of and trends in alcohol-related mortality and morbidity among U.S. college students ages 18-24, 1998-2005. *Journal of Studies on Alcohol and Drugs, 16*, 12-20.
- Johnson, M. B., Lange, J. E., Voas, R. B., Clapp, J. D., Lauer, E., & Snowden, C. B. (2006). The sidewalk survey: A field methodology to measure late-night college drinking. *Evaluation Review, 30*(1), 27-43. doi:10.1177/0193841X04273255
- Koenings, M. M. (2013). Body weight and nutrition consequences of alcohol consumption in young adults. *American Journal of Lifestyle Medicine, 7*(4), 241-245. doi:10.1177/1559827613481425
- Logan, D. E., Henry, T., Vaughn, M., Luk, J. W., & King, K. M. (2012). Rose-colored beer goggles: The relation between experiencing alcohol consequences and perceived likelihood and valence. *Psychology of Addictive Behaviors, 26*, 311-317.
doi.org.ezproxy.mnsu.edu/10.1037/a0024126

- Mallet, K., Lee, C., Neighbors, C., Larimer, M., & Turrisi, R. (2006). Do we learn from our mistakes? An examination of the impact of negative alcohol-related consequences on college students' drinking patterns and perceptions. *Journal of Studies on Alcohol and Drugs*, 67, 269.
- Mundt, M. P., Zakletskaia, L. I., & Fleming, M. F. (2009). Extreme college drinking and alcohol-related injury risk. *Alcoholism: Clinical and Experimental Research*, 33(9), 1532-1538.
- National Institute on Alcohol Abuse and Alcoholism. (2013, July). *College drinking*. Retrieved from http://www.collegedrinkingprevention.gov/niaacollegematerials/panel01/highrisk_02.aspx
- National Institute on Alcohol Abuse and Alcoholism. (2005, September 23). *High-risk drinking in college: What we know and what we need to learn*. Retrieved from http://www.collegedrinkingprevention.gov/niaacollegematerials/panel01/highrisk_02.aspx
- National Institute of Alcohol Abuse and Alcoholism. (2004). *The scope of the problem*. Retrieved from <http://pubs.niaaa.nih.gov/publications/arh283/111-120.htm>
- Nemours Foundation. (2014, January). *Beating the freshman 15*. Retrieved from http://kidshealth.org/teen/school_jobs/college/freshman_15.html
- Ross, L. T., Kolars, C. L., Krahn, D. D., Gomberg, E. S., Clark, G., & Niehaus, A. (2010). Nonconsensual sexual experiences and alcohol consumption among women entering college. *Journal of Interpersonal Violence*, 26, 399-413.

- Siemieniako, D., & Kubacki, K. (2011). Exploring college students' perceptions of negative consequences of binge drinking through consumer collages. *European Advances in Consumer Research*, 9, 255-263. Retrieved from http://www.academia.edu/5625304/Exploring_college_students_perceptions_of_negative_consequences_of_binge_drinking_through_consumer_collages
- Student Health Services, Minnesota State University, Mankato. (2013, June 06). *Alcohol and drug education*. Retrieved from <http://www.mnsu.edu/shs/healtheducation/alcohol.html>
- U.S Department of Health and Human Services. (2002, April). *A call to action: changing the culture of drinking at U.S. colleges*. Retrieved from <http://www.collegedrinkingprevention.gov/media/TaskForceReport.pdf>
- U.S National Library of Medicine. (2012, April 18). *Medical dictionary*. Retrieved from <http://www.nlm.nih.gov/medlineplus/mplusdictionary.html>
- Velazquez, C. E., Pasch, K. E., Laska, M. N., Lust, K., Story, M., & Ehlinger, E. P. (2011). Differential prevalence of alcohol use among 2-year and 4-year college students. *Addictive Behaviors*, 36, 1353-1356.
- Wall, A. F., BaileyShea, C., & McIntosh, S. (2012). Community college student alcohol use: Developing context-specific evidence and prevention approaches. *Community College Review*, 40(1), 25-45. doi:10.1177/0091552112437757
- Wechsler, H., Davenport, A., Dowdall, G., Moeykens, B., & Castillo, S. (1994). Health and behavioral consequences of binge drinking in college. *The Journal of the American Medical Association*, 272, 1672-1677.

Weschler, H., Kelley, K., Weitzman, E., Giovanni, J., & Seibring, M. (2000). What colleges are doing about student binge drinking A survey of college administrators.

Journal of American College Health, 48, 219-226.

Yeomans, M. R. (2010). Alcohol, appetite and energy balance: Is alcohol intake a risk factor for obesity? *Physiology & Behavior, 100*(1), 82-89.

[doi.org.ezproxy.mnsu.edu/10.1016/j.physbeh.2010.01.012](https://doi.org/10.1016/j.physbeh.2010.01.012)

APPENDICES

APPENDIX A

Institutional Review Board (IRB) Approval



February 24, 2014

Dear Amy Hedman:

Re: IRB Proposal entitled "[577162-1] College Students' Perceptions of the Severity of Binge Drinking"
Review Level: Level [I]

Please use 577162 as the IRBNet ID number.

Your IRB Proposal has been approved as of February 24, 2014. On behalf of the Minnesota State University, Mankato IRB, I wish you success with your study. Remember that you must seek approval for any changes in your study, its design, funding source, consent process, or any part of the study that may affect participants in the study. Should any of the participants in your study suffer a research-related injury or other harmful outcome, you are required to report them to the IRB as soon as possible.

When you complete your data collection or should you discontinue your study, you must notify the IRB. Please include your log number with any correspondence with the IRB.

This approval is considered final when the full IRB approves the monthly decisions and active log. The IRB reserves the right to review each study as part of its continuing review process. Continuing reviews are usually scheduled. However, under some conditions the IRB may choose not to announce a continuing review. If you have any questions, feel free to contact me at irb@mnsu.edu or 507-389-5102.

The Principal Investigator (PI) is responsible for maintaining signed consent forms in a secure location at MSU for 3 years. If the PI leaves MSU before the end of the 3-year timeline, he/she is responsible for following "Consent Form Maintenance" procedures posted online.

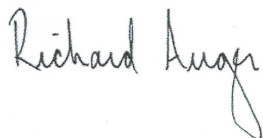
Cordially,

A handwritten signature in cursive script, appearing to read "Mary Hadley".

Mary Hadley, Ph.D.
IRB Coordinator

A handwritten signature in cursive script, appearing to read "Sarah Sifers".

Sarah Sifers, Ph.D.
IRB Co-Chair

A handwritten signature in black ink that reads "Richard Auger". The signature is written in a cursive style with a large, looping initial 'R'.

Richard Auger, Ph.D.
IRB Co-Chair

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Minnesota State University, Mankato IRB's records.

APPENDIX B

Permission to Use College Alcohol Study, Harvard School of Public Health

Toben Nelson <tfnelson@umn.edu>

Tue 11/26/2013 1:53 PM

To:

Stone, Lauren Eleanore;

Cc:

Hedman, Amy S;

Bing Maps

Hi Lauren--

Thanks for your note. Happy to help with this. I've attached the questionnaire.

You are welcome to use the items individually, although please be aware that we embedded a couple of scales with permission of their original author so if those are questions you are interested in you would need to go to them to get permission. Let me know if you have specific questions about that. All we ask is that you cite the source for the questions you use.

-Toben

On 11/25/2013 1:10 PM, Stone, Lauren Eleanore wrote:

Good afternoon Dr. Nelson,

My name is Lauren Stone and I am currently attending Minnesota State University, Mankato and pursuing a degree in Community Health Education. I am in the process of working on my thesis regarding college students' perceptions on the severity of binge drinking. I am writing you to ask permission to use the College Alcohol Study Questionnaire for my survey instrument. Please let me know at your convenience.

Thank you for your time,

Lauren Stone

Graduate Teaching Assistant

Department of Health Science

Highland Center North 213

Lauren.Stone@mnsu.edu

Weitzman, Elissa <Elissa.Weitzman@childrens.harvard.edu>

Mon 11/25/2013 2:24 PM

To:

Stone, Lauren Eleanore;

Cc:

Hedman, Amy S;

Action Items

Hello Lauren,

The survey has been well published. I believe many of the datasets are public domain and the questions/survey items publically documented.

I see no reason why you cannot use it, although I do not have a text copy of it. Perhaps the University of Michigan does, I believe they have some of the datasets.

Regards,

Elissa Weitzman

Stone, Lauren Eleanore

Mon 11/25/2013 1:16 PM

Sent Items

Good afternoon Dr. Weitzman,

My name is Lauren Stone and I am currently attending Minnesota State University, Mankato and pursuing a degree in Community Health Education. I am in the process of working on my thesis regarding college students' perceptions on the severity of binge drinking. I am writing you to ask permission to use the College Alcohol Study Questionnaire for my survey instrument. Please let me know at your convenience.

Thank you for your time,

Lauren Stone

Graduate Teaching Assistant

Department of Health Science

Highland Center North 213

Lauren.Stone@mnsu.edu

APPENDIX C

Content Validity Survey

COLLEGE STUDENTS' PERCEPTIONS OF BINGE DRINKING

The purpose of this research is to assess binge drinking behaviors of selected Minnesota State University Mankato college students. This research will also assess students' perceptions of binge drinking consequences.

Research questions:

- 1) What is the rate of binge drinking reported by selected college students?
- 2) Does binge drinking among selected college students differ based on gender, year in school, race, age, or social group membership?
- 3) What consequences of binge drinking are perceived serious among selected college students?

Directions: Please read each item and rate your response to the following question: is the belief/skill/knowledge measured by this item 'essential,' 'useful, but not essential,' or 'not necessary' in measuring the intended constructs (Lawshe, 1975)

1. How old are you? _____
2. Are you male or female?
 Female
 Male
3. What is your current year in school?
 Freshman (1st year)
 Sophomore (2nd year)
 Junior (3rd year)
 Senior (4th year)
 5th year or beyond (undergraduate)
 Graduate Student
4. What is your ethnic origin?
 American Indian/Alaskan Native
 Hispanic
 Asian/Pacific
 White (non-Hispanic)
 Black (non-Hispanic)
 Other (please specify) _____
5. Are you a member of any of the following social groups? (Choose all that apply)
 Fraternity
 Sorority
 MSU Athletic Team
 Performing Arts Group
 Intramural/Club Sports
 Other (please specify) _____
 None

The following questions ask about how much you drink. A “drink” means any of the following:

A 12-ounce can or bottle of beer

A 4-ounce glass of wine

A 12-ounce bottle or can of wine cooler

A shot of liquor straight or in a mixed drink

6. Think back over the last two weeks. How many times have you had four or more drinks in a row? (Choose one answer)

None
 Once
 Twice
 3 to 5 times
 6 to 9 times
 10 or more times

Essential	Useful, but not essential	Not necessary
-----------	---------------------------	---------------

Comments

7. Think back over the last two weeks. How many times have you had five or more drinks in a row? (Choose one answer)

None
 Once
 Twice
 3 to 5 times
 6 to 9 times
 10 or more times

Essential	Useful, but not essential	Not necessary
-----------	---------------------------	---------------

Comments

8. What type of alcohol did you usually have on those occasions when you had four or more drinks in a row? (Choose one answer)

Beer
 Wine
 Liquor (or mixed drinks)
 Wine coolers
 “Low Alcohol” beer
 No “usual” drink

Essential	Useful, but not essential	Not necessary
-----------	---------------------------	---------------

Comments

9. The last time you had four or more drinks in a row, how many drinks did you actually have? (Choose one answer)

4 drinks
 5 drinks
 6 drinks
 7 drinks
 8 drinks
 9 drinks
 10-14 drinks
 15 or more drinks

Essential	Useful, but not essential	Not necessary
Comments		

10. How long did it take you to consume the number of drinks you indicated in question 9?

1 hour or less
 2 hours
 3 hours
 4 hours
 5 hours
 6 hours or more

Essential	Useful, but not essential	Not necessary
Comments		

Please turn to the next page

Consuming too much alcohol at one time has been known to potentially lead to certain consequences. Please read the potential consequences of binge drinking listed in the left-hand column of the table below. Indicate how serious you believe each consequence is.

Potential Consequence of Drinking Too Much Alcohol	This Consequence is Not Serious	This Consequence is Slightly Serious	This Consequence is Moderately Serious	This Consequence is Very Serious
Experiencing a hangover the next day				
Damage to the brain				
Performing poorly on a class exam				
Getting into a physical fight				
Getting amnesia				
Getting a DUI (driving under the influence)				
Losing consciousness				
Having school problems				
Becoming disoriented/getting lost				
Having unprotected sexual relations				
Blacking out				
Being arrested by law enforcement				
Getting injured				
Being a victim of assault				
Getting alcohol poisoning				
Having nonconsensual sex				
Taking other drugs/substances with alcohol				
Forgetting what you said/did				
Gambled money				
Passing out				
Causing a motor-vehicle accident				
Having to go to a detoxification facility				
Losing personal items including money				
Causing another person's death				

Essential	Useful, but not essential	Not necessary
Comments		

Thank you for taking the time to complete my survey! 😊

Reference:

College Alcohol Study, Harvard School of Public Health

APPENDIX D

Informed Consent and Cover Letter

Informed Consent Form

College Students' Perceptions of the Severity of Binge Drinking

You are requested to participate in research supervised by Dr. Amy Hedman on college students' perceptions of the severity of binge drinking. This survey should take about 5 to 10 minutes to complete. The goal of this survey is to measure college students' perceptions of potential binge drinking consequences as well as reported binge drinking behaviors. You will be asked to answer questions about this topic. If you have any questions about the research, please contact Amy Hedman or Lauren Stone at amy.hedman@mnsu.edu or lauren.stone@mnsu.edu.

Participation is voluntary. You have the option not to respond to any of the questions. You may stop taking the survey at any time. Participation or nonparticipation will not impact your relationship with Minnesota State University, Mankato. If you have questions about the treatment of human participants and Minnesota State University, Mankato, contact the IRB Administrator, Dr. Barry Ries, at 507-389-2321 or barry.ries@mnsu.edu.

Responses will be confidential.

The risks of participating are no more than are experienced in daily life.

There are no direct benefits for participating. Society might benefit by the increased understanding and knowledge of college students' perceptions of binge drinking consequences.

Submitting the completed survey will indicate your informed consent to participate and indicate your assurance that you are at least 18 years of age.

Please keep this copy for your future reference.

MSU IRBNet ID# 577162

Date of MSU IRB approval: February 25, 2014

Introduction to class: My name is Lauren Stone, I am a graduate student in the Department of Health Science. I am currently working on a research project for my thesis, a requirement for my graduate program.

I am here today to invite you to participate in a research study to measure college students' perceived seriousness of binge drinking and binge drinking behaviors. Participation is completely voluntary. Your responses will be confidential. The informed consent form that we are handing out right now provides details about the confidentiality, risks and benefits of participating in this research. Please follow along with me as I read the informed consent. *(Consent Form is read by researcher)*. If you agree to participate in this study, please complete the questionnaire. The informed consent form is for you to keep for your records.

If you, as a participant, would like documentation linking you, the participant, to this research. Please sign the informed consent form and turn it in with your completed survey. Please note though that your signature is not required to participate in this research. *(We will have extra copies of the informed consent form on hand to ensure all participants have one to take home for their records)*.

Upon completion of the questionnaire, please fold your completed questionnaire and place it in the blank white envelope provided. Once all participants appear to have completed their questionnaires, we will ask you to pass your envelopes with questionnaires forward so we are able to collect them all.

Thank you for your attention and participation today.

(Informed consent forms, questionnaires, and envelopes are distributed)

APPENDIX E

Questionnaire

COLLEGE STUDENTS' PERCEPTIONS OF BINGE DRINKING

The purpose of this research is to assess binge drinking behaviors of selected Minnesota State University Mankato college students. This research will also assess students' perceptions of binge drinking consequences.

Directions: Please answer the following questions to the best of your ability. Clearly mark your answers to each question with an X.

11. How old are you? _____
12. Are you male or female?
 _____ Female
 _____ Male
13. What is your current year in school?
 _____ Freshman (1st year)
 _____ Sophomore (2nd year)
 _____ Junior (3rd year)
 _____ Senior (4th year)
 _____ 5th year or beyond (undergraduate)
 _____ Graduate Student
14. What is your ethnic origin?
 _____ American Indian/Alaskan Native
 _____ Hispanic
 _____ Asian/Pacific
 _____ White (non-Hispanic)
 _____ Black (non-Hispanic)
 _____ Other (please specify) _____
15. Are you a member of any of the following organizations? (Choose all that apply)
 _____ Fraternity
 _____ Sorority
 _____ MSU Athletic Team
 _____ Performing Arts Group
 _____ Intramural/Club Sports
 _____ Other (please specify) _____
 _____ None

The following questions ask about how much you drink. A "drink" means any of the following:

A 12-ounce can or bottle of beer

A 4-ounce glass of wine

A 12-ounce bottle or can of wine cooler

A shot of liquor straight or in a mixed drink

16. Think back over the last two weeks. How many times have you had four or more drinks in a row? (Choose one answer)
- None
 - Once
 - Twice
 - 3 to 5 times
 - 6 to 9 times
 - 10 or more times
17. Think back over the last two weeks. How many times have you had five or more drinks in a row? (Choose one answer)
- None
 - Once
 - Twice
 - 3 to 5 times
 - 6 to 9 times
 - 10 or more times
18. What type of alcohol did you usually have on those occasions when you had four or more drinks in a row? (Choose one answer)
- Beer
 - Wine
 - Liquor (or mixed drinks)
 - Wine coolers
 - "Low Alcohol" beer
 - No "usual" drink
 - Not applicable
19. The last time you had four or more drinks in a row, how many drinks did you actually have? (Choose one answer)
- 4 drinks
 - 5 drinks
 - 6 drinks
 - 7 drinks
 - 8 drinks
 - 9 drinks
 - 10-14 drinks
 - 15 or more drinks
 - Not applicable
20. How long did it take you to consume the number of drinks you indicated in question 9?
- 1 hour or less
 - 2 hours
 - 3 hours
 - 4 hours
 - 5 hours
 - 6 hours or more
 - Not applicable

Consuming too much alcohol at one time has been known to potentially lead to certain consequences. Please read the potential consequences of binge drinking listed in the left-hand column of the table below. Indicate how serious you believe each consequence is.

Potential Consequence of Drinking Too Much Alcohol	This Consequence is Not Serious	This Consequence is Slightly Serious	This Consequence is Moderately Serious	This Consequence is Very Serious
Experiencing a hangover the next day				
Damage to the brain				
Impacting school attendance				
Getting into a physical fight				
Getting amnesia				
Getting a DUI (driving under the influence)				
Losing consciousness				
Impacting course grades				
Getting an underage drinking ticket (minor)				
Becoming disoriented/getting lost				
Having unprotected sexual relations				
Blacking out				
Being arrested by law enforcement				
Getting injured				
Being a victim of assault				
Getting alcohol poisoning				
Having nonconsensual sex				
Taking other drugs/substances with alcohol				
Forgetting what you said/did				
Gambled money				
Passing out				
Causing a motor-vehicle accident				
Having to go to a detoxification facility				
Losing personal items including money				
Causing another person's				

death				
Vandalism/Property destruction				

Thank you for taking the time to complete my survey! 😊

Reference:

Harvard School of Public Health, Henry Wechsler (2005), *College alcohol study*

APPENDIX F**Table of Specifications**

Table 3.1

Table of Specifications

Research Question (RQ)	Survey items used to assess RQ'S	Level of Data (Nominal, Ordinal, Interval/Ratio)*	Analysis needed to assess RQ
What is the rate of binge drinking reported by selected college students?	Questions 6-10	Ordinal	Descriptive
Does binge drinking among college students differ based on gender, year in school, race, age, or social groups?	Questions 1-5	Nominal/Ordinal	Nonparametric Tests
What consequences of binge drinking are perceived serious among selected college students?	Questions 11 (Chart)	Ordinal	Descriptive

* Indicates level of data for survey items, not RQ's