

HOW COLLEGE WOMEN PERCEIVE WEB-BASED ALCOHOL EDUCATION
IMPACTS THEIR DRINKING BEHAVIORS

By

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HOW COLLEGE WOMEN PERCEIVE WEB-BASED ALCOHOL EDUCATION IMPACTS THEIR DRINKING BEHAVIORS

Abstract

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The conversation surrounding the use of alcohol on college campuses is ongoing; many institutions of higher education are unsure of how to address the issue or employ different education methodologies to curb students' risky drinking that may be ineffective. Web-based alcohol education is one of the most recent forms of programming and it is quickly replacing the lecture-style or credit-bearing programs traditionally seen on college campuses. To evaluate the effectiveness of web-based alcohol education versus traditional education, this study utilizes two focus groups comprised of college women from a public, four-year university in the rural northwest to ask what form of education students perceive to be the most valuable. The conclusion of the research was that web-based alcohol education improved students' knowledge about web-based alcohol education but it did not change their drinking behaviors. Recommendations employ the theory of planned behavior and focus on attitudinal, cultural and behavioral change around alcohol use.

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Chapter I: Introduction

Background

The state of alcohol use on college campuses in the United States is an omnipresent issue facing university administrators, faculty, parents, and students. In the College Alcohol Study conducted by the Harvard School of Public Health, Wechsler, Lee, Kuo, Seibring, Nelson, and Lee (2002) found that out of 119 four-year colleges, about two in five (44.4 percent) college students binge drink, constituting as four or more drinks per occasion for women and 5 or more drinks per occasion for men. During 2001, about 40 percent of students self-reported one or more symptom(s) of alcohol dependence or abuse (Johnston, O'Malley, Bachman, & Schulenberg, 2005; Knight, Wechsler, Kuo, Seibring, Weitzman, & Schuckit, 2002). Aside from intentional or unintentional physical harm to oneself or to others, a heavy drinker may see academic difficulties, trouble in their relationships, promiscuous sexual activity, or problems with the law (Hingson, Heeren, Winter, & Wechsler, 2005; Wechsler & Wuethrich, 2002). Alcohol researchers have also found that undergraduate college students drink more than their peers who do not attend college (Dawson, Grant, Stinson, & Chou, 2004), which raises concern for stakeholders about what on college campuses enables alcohol consumption. Considering the negative effects that alcohol may have on campus climate, it is necessary for university administrators to look at how to educate students about alcohol use.

The motivation for this study is to determine if web-based alcohol education properly serves the purpose of alcohol education programming for college women. In this research, the primary interest is in a small female student population at a public, four-year university in the rural northwest. This study addresses the campus alcohol culture at the institution and will aid in

determining the best alcohol education programming for the students. From this point forward, the institution will be referred to as State University.

Statement of the Problem

The problem is that there is a lack of effective alcohol education on college campuses and students continue to engage in high-risk drinking behavior. Binge drinking on college campuses creates a problematic climate enabling assault, academic suffering, and poor decision-making (Wechsler & Wuethrich, 2002). With 30 percent of college students meeting the criteria for alcohol abuse and 6 percent for alcohol dependence (Knight, Wechsler, Kuo, Seibring, Weitzman, & Schuckit, 2002), there is a need for action in order to reduce the amount of heavy drinking on college campuses. In a study conducted by Outside the Classroom, Inc. (2009) 30,183 students answered questions about how they spent their time. Of that sample, 69 percent of the students had consumed alcohol within the two weeks prior to the study. Those students had a mean of 10.2 hours per week spent consuming alcohol, compared to the average of 6.8 hours per week they spent studying. This creates a conflict in values clarification on college campuses, continuing to perpetuate a drinking culture across the nation. While this data is not from a local study, an assumption is that the statistics are generalizable to the nature and campus climate at State University. Therefore, this study will help expand the knowledge on the perception of campus alcohol education and how it impacts the drinking behavior of college women.

Purpose of the Study

The purpose of this study is to determine how college women perceive web-based alcohol education affects their drinking behaviors. Because of the novelty of web-based alcohol education, there have been few studies addressing the effectiveness of this programming method.

Prior to the introduction of web-based alcohol education, other forms of education have included: (a) credit-based university courses, (b) university- or law-mandated alcohol programs, (c) non-credit alcohol lecture series, or (d) advertising and social norming campaigns. Web-based alcohol education provides customized, individualized feedback on a student's alcohol behaviors and attitudes. Because it is online, the student can complete the coursework at his or her own pace. This study will supplement the primarily quantitative literature with a student perspective on the best method for influencing students' drinking behaviors.

Research Questions

In order to determine college women's perspective on web-based alcohol education, the following research questions guided the study:

1. How do college women view alcohol education?
2. What are the attitudes of college women towards web-based alcohol education programs?
3. To what extent does drinking behavior change as a result of using web-based alcohol education programming?

Each question contributed to the primary purpose of the study. This study sought to understand students' attitudes towards alcohol education, the effectiveness of web-based alcohol education programs, and if web-based education altered students' drinking behavior.

Assumptions of the Study

There are many assumptions influencing this research that have not been verified as true (Gay, Mills, & Airasian, 2009). The following are assumptions considered when conducting the research:

1. Alcohol use is commonplace in the college student lifestyle.

2. Students of all ages drink alcohol in college.
3. Alcohol education is a vital component in the college environment as a method for abuse prevention.
4. Data gathered in previous alcohol studies are generalizable to the campus of interest.
5. The majority of college students receive some form of alcohol education.
6. This study informs student affairs professionals and counselors about the most effective method for alcohol education.

Institutional Context

The institutional profile for where the research was conducted is a large, public, 4-year, Division I, research institution. The institution is referred to as State University for the sake of this study. The student population is about 21,750 and 52 percent of those students are female (The Princeton Review, 2010). The women in the focus group represent the approximately 1,300 sorority members on campus, most of which have completed a web-based alcohol education class (Center for Fraternity and Sorority Life, 2010). State University is located in a rural area and recruits primarily in-state students, of which comprises 92 percent of the student population. The participants in the study explained the integration for freshmen into the college environment is through the employment of the Freshman Focus program, which groups students based on their academic interests and living arrangements. The students do not receive alcohol education through this program; however, alcohol education programs via lecture format are conducted in the residence halls each semester.

Participants

The participants were limited to traditional, matriculated college women, identified as students who completed a web-based alcohol education course. Because of the student population that traditionally participates in web-based alcohol education on campus, interview volunteers are sorority members. Of the 17 volunteers, 11 of the women answered scheduling requests for the focus group interviews (see Appendix F). The ages of the women are as follows: 20 years old (2), 21 years old (6), and 22 years old (3). All of the participants admitted that they drink alcohol and all of the participants completed a web-based alcohol education course. Other types of alcohol education taken by the participants include State University mandated programming, course lectures, and programs required for the fraternity and sorority community. All of the participants are members of a sorority and therefore are required to complete the web-based alcohol education. One participant completed the web-based programming as a requirement for sitting on the Student Conduct Board and another participant completed the program as a requirement for violating a State University policy.

Limitations

As with all research, there are limitations to this study. Self-reported measures of alcohol consumption, the sample size, utilization of focus group methodology for data collection, and personal bias are limitations that may have the greatest impact on the research. While the following limitations encompass the concerns associated with the study, the type of research and analysis is the primary limitation. This study did not employ the use of quantitative data analysis; therefore, the weight of the research was on the students' recollection of the program and their drinking experiences.

Self-reported measures of alcohol consumption. A review of the literature shows that there are limitations when evaluating the effectiveness of alcohol education programming on college campuses. Primarily, researchers have used self-reporting methods for measuring students' alcohol consumption. When Wechsler and Nelson (2008) discussed the results of the 14-year Harvard School of Public Health College Alcohol Survey, they presented this method of self-reporting as a limitation to the study because “students have been shown to underestimate their actual alcohol consumption” (p. 7). This limitation is relevant to the area of research; however, because the focus group interviews do not concentrate on the level of alcohol consumption, it will not severely hinder the results of the study.

Sample size. The scope of the study did not include students who are freshmen or non-members of a sorority at State University. Because of the chosen research method, interviewing large student populations was not a feasible task for the timeframe. Another factor that limits the sampling pool is that the institution does not require web-based alcohol education; rather, completing web-based alcohol education is a sanction for students in violation of the state law and University policy (Counseling Services, 2010). Apart from sanctioning by student conduct, new members of social sororities use web-based alcohol education to fulfill a programming requirement for their (Inter)National organization. Each of these factors limited the pool to students in violation of the conduct code and women in the Greek community. While the results of the study are not generalizable to the entire college student population, the information supplements quantitative studies surveying the effectiveness of web-based alcohol education and the limited research on alcohol consumption and education among college women.

In addition to the narrow scope, no first-year students volunteered to participate in the study. Because the participants were sorority women in their second through fifth years of

school, their answers and narratives reflected experiences one to four years prior to the interview. Because of a campus-based sorority-programming requirement, they have been continuing alcohol education in other formats and infrequently are involved with their first-year students completing the web-based alcohol education course. Therefore, the information retained from alcohol education may have been a result of the continued programming rather than the web-based education programming.

To develop research further on the effectiveness of web-based alcohol education, women who took the class only to complete a State University mandate should be included in a follow-up study rather than completion only for a sorority membership mandate. Additionally, incorporating a broader scope of college women is key for a comprehensive look at the impact of web-based alcohol education.

Focus group research. As with many qualitative research methodologies, focus groups have many limitations can confound the data collection process. The limitations present are group dynamics and the influence of peers on the participants. Focus group interviews allow participants to “clarify and modify their ideas through discussion and challenge with other participants” (Stage & Manning, 2003, p. 50). However, there is a chance that the louder minority of the group may stifle conversation. One or two participants might be more outspoken, natural leaders, or have a negative bias against the research. These factors may silence other participants, cause them to shift their opinion for reasons of self-preservation, or to overreact and speak out disadvantageously. When this concept of groupthink takes place, intentionally engaging the quieter participants was critical.

Outside of group interaction, analyzing data tabulated through interview transcriptions may lead to incorrect assumptions or conclusions drawn by the study.

Personal bias. The researcher has used web-based alcohol education as well as participated in general alcohol education through lecture series, presentations, and mandated alcohol classes at State University. Bias about the alcohol culture is also present as there is current interaction with students on a regular basis around topics concerning risk management, alcohol use, and alcohol education.

Definition of Terms

1. *Binge drink.* The five/four measure of alcohol consumption; four or more drinks on one occasion for women and five or more drinks for men on one occasion (Wechsler & Austin, 1998).
2. *(College) Student.* A matriculated, undergraduate, male or female student living at and attending a four-year, public institution of higher education.
3. *Course infusion.* Alcohol education is inculcated in university, credit-based coursework.
4. *Groupthink.* In regards to student behavior, groupthink reflects the decisions made by a cohesive group and consequently, can cause individuals to make decisions they might not outside of the group setting.
5. *Heavy drinker.* A person who meets or exceeds the five/four measure of alcohol consumption (Wechsler & Austin, 1998).
6. *High-risk students.* First-year students, Greek affiliates, and student athletes qualify as at-risk for developing heavy drinking behaviors (Larimer & Cronce, 2002).
7. *Intervention.* A tactic used in alcohol education that interferes or mediates with a student's current drinking behavior or attitudes with the intent to alter that pattern and move towards a healthy drinking behavior.

8. *Protective behaviors*. “Behaviors that individuals can engage in while drinking in order to limit negative alcohol-related consequences” (Martens, Taylor, Damann, Page, Mowry, & Cimini, 2004, p. 390).
9. *Standard Drink*. In the United States, a "standard" drink is any drink that contains about 0.6 fluid ounces or 14 grams of "pure" alcohol (National Institute on Alcohol Abuse and Alcoholism, 2009).
10. *Web-based intervention/education*. An online intervention program that provides customized, individual feedback on a student’s alcohol behaviors.

Methodology

The methodology for this pilot study is focus group research, with two groups of college women ranging in age and level of alcohol education. Prior to the interview sessions, the participants, providing the study with a portrait of the student demographics and level of alcohol education, completed a survey. The interviews engaged small groups in an organized discussion to explore their perceptions or experiences on web-based alcohol education. During the interview sessions, students shared their views, asked questions about others’ experiences, and clarified their perceptions of the effectiveness of web-based alcohol education. The trends and themes in the interview transcripts and session field notes contributing to the purpose of the study steered the analysis process.

Reasoning for methodology. After reviewing the literature, the majority of research on effective alcohol education is quantitative. The studies focusing on web-based alcohol education have also been quantitative research. There are pretest-posttest databases that have longitudinally tracked the behavior changes students have made with various alcohol education programming styles as well as the use of one of six web-based programs. In addition to the data of these

programs, the Harvard School of Public Health College Alcohol Survey (CAS) (Wechsler, Lee, Kuo, Seibring, Nelson, & Lee, 2002) created a longitudinal portrait of student alcohol consumption over a 14-year period. The qualitative methodology of this pilot study supplements the existing research and provide a meaningful context to college student alcohol consumption and education programs. Gall, Borg, and Gall (1996) support this methodology when they stated that, “unless researchers first generate an accurate description of an education phenomenon as it exists, they lack a firm basis for explaining or changing it” (p. 374).

Significance

Because of the ubiquitous nature of alcohol use on college campuses, this study is relevant to higher education and expands previous research on alcohol consumption among college students, from the perspective of college women. This study will inform the academe about the effectiveness of web-based alcohol education programs. More specifically, this study will provide information to the host institution about how to best utilize web-based programming as a method for changing alcohol consumption behaviors on campus.

Summary

The research conducted in this study addresses the problems that institutions of higher education face regarding the use of alcohol and lack of effective education to combat the issues surrounding alcohol use. The research questions directly address alcohol education practices and the effectiveness of web-based alcohol education, while allowing discussion for information about the impact of the campus culture. The methodology provides an opportunity for qualitative, narrative data to surface. In doing so, the methodology supplements the existing quantitative data regarding the effectiveness of web-based alcohol education. The following section discusses the literature and research related to the history of alcohol use on college

campus, the drinking trends among women, common alcohol education strategies, and web-based alcohol education. Chapter III explains the methodology of this study, as well as the use of the two instruments for data collection. Chapters IV and V present the findings of the study and the conclusions and recommendations, respectfully.

Chapter II: Literature Review

This review of literature provides a description of alcohol use on college campuses and drinking trends among college women, as well as the strategies campus professionals use for alcohol education and abuse prevention with undergraduate student populations. There are three “traditional” methods for alcohol education used most frequently on college campuses, including: (a) protective behaviors against heavy drinking and (b) social normative education for prevention. More recent educational programming utilizes technology in an online, web-based format. A review on the emergence of web-based alcohol education and the current research findings will conclude this literature review. The literature relevant to the research study was located using education databases including the ERIC Digest, CSA Illumina, and ProQuest. The additional literature stems from articles generated by the listed databases. Key words included, but were not limited to: college (women) and alcohol use, web-based alcohol education, (college) alcohol intervention, alcohol prevention, and binge drinking.

Alcohol Use on College Campuses

Information about the alcohol consumption prior to the 1950s on college campuses has been difficult to come by for historians (Wechsler & Wuethrich, 2002). Because of the permanence of alcohol in American culture since the arrival of the Mayflower in the 17th century (Cohen, 1998), it can only be assumed that beer, wine, and spirits were as integrated into the college scene as they were in society. Anecdotes of the 1920s and 1930s reference nights where students would have endless parties, but textbooks and historical documents do not provide this information.

Few students in the Colonial era continued onto higher education as compulsory schooling was not commonplace in society, and reasons for attending a college were limited to

studying to become a member of the clergy (Cohen, 1998). By the 18th century, *in loco parentis* – college serving as the student’s parent – had begun to take shape and students were indoctrinated with structure, values, and a balanced life. If the college life was any reflection of society at the time, alcohol was widely drunk and any laws written about alcohol were against drunkenness, not the prohibition of alcohol use. One of the first construction projects on the Harvard College campus in the mid 1600s was to ensure a consistent supply of beer be served in the student dining halls (Furnas, 1965, p. 20). As student life developed into the 18th century, student canteens – also called butteries – sold wine, beer, and liquor (Wechsler & Wuethrich, 2002), indicating a strong presence of alcohol on campus. In 1734, Harvard saw such an increase of use in distilled spirits and a decrease in student sales in the canteens that a resolution was passed stating “that no college resident should drink or serve distilled spirits or mixed drinks, and that no undergraduate should” (p. 27) have liquor in their possession. The goal of the College was to encourage students to purchase and drink alcohol in the canteens. Eventually, this constant presence of alcohol cultivated a rowdy student body and Harvard graduates required a sheriff escort during their graduation procession (Wechsler, Dowdall, Davenport, & Rimm, 1995).

Disorderly behavior took place on other campuses as well. In 1820, excessive drinking at the University of Virginia caught the attention of Thomas Jefferson and he pushed for policy change. His recommendations failed. Instead, a 165-year-old tradition began in 1825 and the students celebrated ‘Easters’, a spring fling around the time of Jefferson’s birthday (Wechsler & Wuethrich, 2002). In 1832, the President of the Southern and Western Theological Seminary school was stopped by the public when he tried to expel a student for disruptive behavior while intoxicated. While institutions were strict at the time, expulsion due to alcohol misdemeanors

was not commonplace. College and university students continued to incorporate alcohol into their annual traditions. In 1909, Texas A&M University students built a large bonfire after the final game of the football season to celebrate the match with the rival university. This tradition continued until 1999 when the sixty-foot, 2-million pound bonfire collapsed, killing twelve students (Wechsler & Wuethrich, 2002). One of the more devastating alcohol-related events, the end of Bonfire is an example of what can happen when university administration chooses not to get involved.

The impact of law. Over the past few centuries, American law around alcohol use has so drastically changed and in some cases, changed back to the original law. The ratification of the Prohibition Amendment in January of 1919 forbade the manufacture, sale, transportation, import, and export of liquor for consumption. Society also began to see a rise in drinking among women. This could have happened due to the increase in college enrollment among women. By the 1920s, “nearly half the undergraduates” were women and they accounted for two of every five students (Cohen, 1998, p. 114). By the beginning 1933, the effect of prohibition was apparent and illegal alcohol trade continued to escalate. During the same time, temperance leader Lucius Manlius Sargent tried to get secondary schools, colleges and universities to eliminate all references to alcoholic beverages in ancient Greek and Latin texts (Burns, 2004).

One of the most controversial aspects of alcohol law is the minimum drinking age. In 1971, the confirmation of the 26th Amendment “lowered the voting age to eighteen” (Cohen, 1998, p. 331) and states began lowering the drinking age to be in alignment with the Amendment. Of the initial 29 states that made this change, drinking ages varied from 18 to 20, often based on the type of alcohol being consumed (Hanson, 2009). When the National Minimum Drinking Age Act of 1984 passed, all states were required to raise their minimum

purchase and public possession of alcohol to age 21 (National Highway Traffic Safety Administration, 1999). While numbers changed in the law, attitudes did not change on campus. Students' "sense of entitlement" (Wechsler & Wuethrich, 2002) to drink at a younger age was cause for some of the biggest challenges universities face in upholding the law. The ethnocentrism of the 1980s promoted this mentality. In a 1980 study conducted by University of California Los Angeles and American Council on Education, college freshmen were more interested in status, power, and money than at any time during the past 15 years. This data correlated with the increase in drinking in the 1990s and campus riots surfaced all over the country (Wechsler, Lee, Kuo, Seibring, Nelson, & Lee, 2002). In 1999, the cost of underage drinking to the United States government exceeded 53 billion dollars. The majority of these expenses stemmed from alcohol use on college campuses.

Social changes in drinking. There was a major shift in the alcohol culture in the late 1900s on college campuses, as noted by Robert Straus (Wechsler & Wuethrich, 2002). Along with Bacon, Straus conducted the first survey measuring student alcohol use across 27 American campuses in 1949 (Straus & Bacon, 1953). Many of these trends changed over the next fifty years, as women have caught up to men in how much they drink, the general population of students drinking has increased, and the reasons students drink have changed significantly. Outside of changes in law, two trends in the history of higher education and the United States have contributed to these changes in alcohol use among students: (a) the loss of *in loco parentis* and (b) war and activism of the 1960s and 1970s.

The recognition of *in loco parentis* began as early as the 1600s when parents sent their teenage sons to college with the notion that they would graduate with not only a degree but also a more refined character (Cohen, 1998). As the institution developed into the Emergent Era of the

late 18th and early 19th centuries, *in loco parentis* was a major role in the function and mission of the university. Student behavior was out of control and alcohol was a likely factor in the students' actions contributing to the problem.

Fraternities also became a significant aspect of student life and the close-knit peer relationships encouraged a lifestyle of socializing and drinking. Dress codes, curfews, and policies for men visiting women's dorms were the norm and administration took responsibility in the scholastic, interpersonal and intrapersonal development of the young men and women. In 1949, two alcohol-related deaths caused uproar among community members and a criticism of the lax nature of the administration and lenience on alcohol policies (Wechsler & Wuethrich, 2002).

This perspective of how the university should be interacting with the student was common for the time and exemplifies the nature of the relationships between the student and the university. Eventually, as students' drinking behaviors shifted and parental involvement heightened, administrators were in a bind. The impact of war, activism, and the fluctuation of the minimum drinking age laws made this balance more difficult and the true challenge of alcohol on campus took effect. Binge drinking and campus riots took hold and institutions seemed to exist under the students' control (Hanson, 2009; Wechsler & Wuethrich, 2002).

Students held new adult responsibilities with each American war. Eighteen-year-old veterans returned from a war where their life was on the line yet they were unable to drink upon their arrival home. For this reason, *in loco parentis* was rejected with the social movements of the 1970s and university response was relaxing institutional policies and removing restrictions that had worked towards keeping order on campus for decades. The absenteeism of the parental role enabled students to act in their own way and live by their own rules. This new level of

student autonomy quickly became the campus norm and universities have found it difficult to reign in the student population as they once had (Wechsler & Wuethrich, 2002).

The struggle for campuses to change the drinking norm continues to frustrate administrators and stakeholders in student success. Today, university administrators are lowering their standards and “giving in” to alcohol companies, no longer facing the issue of heavy drinking that is present on college campuses nationwide (Wechsler & Wuethrich, 2002).

Wechsler and Wuethrich cited the *New York Times* and *Wall Street Journal* both as newspapers that caught onto this attitude, exclaiming that brewers are writing alcohol policies and universities are solving the alcohol crisis simply by playing it down. In the preface to *Dying to Drink* (Wechsler & Wuethrich, 2002), the authors address this problematic behavior:

... partnering with the alcohol industry to play down the problem will not change the reality of the injuries, vandalism, sexual assaults, lost educational opportunities, and other ills that come with binge drinking. Alcohol is responsible for an estimated fourteen hundred student deaths a year and half a million unintentional injuries. The mess will not be cleaned up without the involvement of students and parents and civic leaders in a concerted full-scale effort to change the environment and culture of binge drinking on America’s college campuses. (p. x)

While large-scale environmental-change efforts will take years, immediate alcohol intervention and education strategies can aid in moving student behaviors about alcohol use towards a low-risk, moderate drinking attitude. In doing so, campus stakeholders need to consider the social trends in alcohol consumption between each gender and the power of peer influence among the decision making of college students.

Drinking Trends Among Women

While college men drink more heavily and frequently than women, the data has shown the gender gap in alcohol consumption among college-age students is decreasing (Christie-Mizell & Peralta, 2009). In fact, binge drinking has risen by about 40 percent for women ages 21 to 23 since 1979 (Psych Central News Editor, 2009) . Just as the amount of binge drinking has continued to rise among the national college student population (Hingson & Howland, 2002), the nature of and motivation for drinking among women has shifted significantly. The College Alcohol Study (Wechsler et al., 2002) evaluated the changes in drinking trends among students from 1992 to 2001 and in that time, the number of women who got drunk more than three times in the previous month increased by 5.7 percent to 24.6 percent of the women surveyed. Additionally, there was a 3.8 percent increase from 35.6 percent in the number of women who drank more than four drinks on one occasion three or more times in the previous two weeks. This nature of drinking classifies the women as frequent binge drinkers and studies have found that engaging in this high-risk behavior has many consequences. Decreased academic performance, mixing alcohol with other drugs, memory loss, and sexual promiscuity have all been directly linked to binge drinking (Perkins, 2002). A 2004 study on the victimization of college women and their level of alcohol consumption showed that of first-year college women, 31 percent will be engaged in some form of sexual assault. With over 40 percent of college women binge drinking, there is worry for the health and well-being of these students (Parks & Fals-Stewart, 2004).

Motivational factors for drinking. Smith and Berger (2010) researched how college women drink and within that study, identified their motives for drinking. “Merriment (to have fun), meeting others, mating and men, mood management, and ‘being me’” (p. 39) were the

categories that defined women's reasons to drink and ultimately, describe their overall desire for a positive collegiate experience. Some of the women in the study discussed how they used alcohol as means for "mood management", typically because they were coping with a conflict, had a bad day or needed something to lift their spirits. These trends are similar to those found in the Harvard School of Public Health College Alcohol Study in that 43 percent of the women studied identified drinking to get drunk as their motive for alcohol consumption (Wechsler, et al., 2002).

Smith and Berger (2010) also identified relationship-building as a reason for alcohol use. Many of the women in the study said that drinking brought their group of peers closer together. These groups of friends were typically members of the same organization or club, lived in the same residence hall or were all of one academic class and it was through the ritualization of drinking, that they bonded as a group. This group of women also saw the relationship-building and group drinking as a form of protection versus drinking on one's own. A group offers protection for the woman who became sick from drinking too much, was approached by a stranger, needed a ride home, or was going to make a poor decision. Following a period of drinking, the women deepened their bond through storytelling and eventually, the cycle of drinking and telling perpetuated. Smith and Berger identified the ritualization of drinking and use of the group as a protective behavioral strategy as primary contributors to high-risk drinking. The women upheld an expectation that the group would drink together and that one individual would be enabled to binge drink because her friends would take care of her. The women in the study had admitted to facing the consequences of heavy drinking in that they suffered academically, had fights with friends, became overly-emotional when drinking, experienced blackouts, hangovers, pain and vomiting, and were sexually promiscuous or assaulted.

Alcohol use research on college women. Since the first comprehensive study of college student alcohol use in the 1950s, very few studies have focused on use among women. Smith and Berger (2010) have cited this lack of research as a result of the attention on college men because of their higher rates of drinking. Because their drinking patterns and behaviors have been more apparent to the public, studies have targeted college men as a primary cohort for evaluating alcohol use. Previous research generalizing alcohol use among American college students has occasionally delineated between gender differences in alcohol consumption; however, an inequity in evaluating college women has made it more difficult to evaluate the trends as closely. Not only is the information about alcohol consumption among women incomplete, the programming efforts and tools for education do not address the trends or motives for women to drink. Smith and Berger recommend utilizing the relationship and group-drinking patterns in the favor of educators; have the women reflect on their drinking experiences as a method for experiential learning. Based on the deficit in alcohol research among college women, a recommendation for researchers is to be more cognizant of and attentive to gender differences in alcohol use and remediation strategies.

Alcohol Education Strategies

In the studies focusing on behavior change theories, researchers measured participants' willingness to alter their drinking patterns. The majority of the studies focused primarily on high-risk drinkers, identified as having engaged in binge drinking prior to the study using a pre-test or self-report measure to record their alcohol consumption. Depending on the methodology, the report measured consumption two weeks to up to one month prior to the time of the pre-test. All of the reviewed studies used the five/four measure for gauging binge drinking constituting as five or more servings for men on one occasion and four or more servings for women (Wechsler &

Austin, 1998; Wechsler & Nelson, 2008). A serving of alcohol is defined as 12 ounces of a regular beer, 5 ounces of table wine, or 1.5 ounces of 80-proof hard alcohol (National Institute on Alcohol Abuse and Alcoholism, 2009).

Protective behavioral and social normative strategies have served as the foundation for prevention education on college campuses, beginning with informational-only approaches to education (Moscowitz, 1989). There was no empirical research or theoretical context to this strategy. Consequently, the idea that students would decrease alcohol use if they were properly informed is erroneous. Normative education surfaced in the 1990s, theoretically framed on peer-influence as a motivator to drink (Larimer & Cronce, 2002). Following these education strategies, private companies have collaborated with universities to implement the use of online alcohol education for college campuses and evaluate the effectiveness on reducing heavy drinking.

Protective behavior strategies. The first section of this literature review will address protective behavior strategies as a method for alcohol education. Protective behaviors are actions “...that individuals can engage in while drinking in order to limit negative alcohol-related consequences” (Martens, Taylor, Damann, Page, Mowry, & Cimini, 2004, p. 390). Examples include using a buddy system when going out with friends, alternating alcoholic with nonalcoholic beverages, eating a substantial meal before drinking, or using a designated driver. Students learn this method of harm-reduction through informational sessions about alcohol use and develop skills to protect themselves from the negative consequences of heavy drinking. Examples for delivering the information include, but are not limited to: (a) course infusion, (b) handouts accompanying surveys, or (c) non-credit alcohol education programs.

Early studies utilized course infusion. Faculty members were accountable for promoting holistic education and creating a well-rounded student prior to the 1970s; this was the pragmatic option (Wechsler & Wuethrich, 2002). After alcohol education began filtering out of classroom curricula, some universities administered mail-in surveys with individualized feedback or a standard sheet of information on alcohol, with no follow up (Agostinelli, Brown, & Miller, 1995). Limitations of this strategy are clear, as researchers were unable to evaluate the effectiveness of their work, primarily serving as data-collectors rather than change agents. Eventually, researchers took a different approach and studies incorporated behavior change theory to assess the alteration of students' attitudes after they received alcohol education.

Martens et al. (2007) conducted a study to measure the use of the Protective Behavioral Strategies Scale (PBSS) as an approach for students to make healthy decisions when drinking. In early research, protective factors primarily focused on how genetic makeup, familial influences, attachment theories, and the early onset of behavioral problems prevented the harms of alcohol. Because of the impossibility of changing these factors through intervention, the PBSS model uses cognitive-behavioral strategies to encourage student-initiated change around their alcohol consumption. Grounded in behavior change theory, Martens et al. (2007) recognized *any* decrease in harmful behavior as a successful intervention. One of the benefits of PBSS has been the encouragement for students to reflect on their alcohol consumption and take steps towards making smart decisions about their use. With the additional alcohol education, students decreased heavy drinking behaviors, did not participate in drinking games as frequently and alternated between alcoholic and nonalcoholic beverages when partying.

Course-infusion through University or Health 101 is another method for educating students about alcohol use. Alternatively, few researchers have nontraditionally explored alcohol

education through very traditional coursework. In *Alcohol Education via American Literature*, Cellucci and Larsen (1995) pulled various literary works into the course curricula to display the actions and behaviors of heavy drinkers. Using Greek mythology and books by Scott Fitzgerald, Ernest Hemingway and Jack London, students read about the physical dependence and conditions of life for the alcohol-abusing characters. Based on their hypothesis that students will relate to the characters and ultimately reduce their alcohol consumption due to the real-life nature of the course, Cellucci and Larsen explain the significance of literature throughout history and the impact it has had on social norms and behavior patterns of the literary audience. Cellucci and Larsen have laid out some of the groundwork for a new type of qualitative study, focusing on a general education piece (classical literature) and infusing alcohol prevention and education into the course outline.

Protective behavior strategies are a straightforward method for educating students on alcohol use while working towards reducing high-risk drinking behavior. The easy implementation of this strategy with another methodology will increase the impact on student behavior and will remain a basic framework for subsequent alcohol education programs.

Social normative strategies. Social norms are the factors that make up a culture or climate and drive individuals to behave in a certain manner (Perkins, 2002). When evaluating the norms of alcohol use on college campuses, Perkins concludes that social normative education strategies could be effective models for decreasing alcohol consumption among students. Early approaches used survey methods to change the social norms of a college campus while others have used large-scale mass media campaigns to change student perspectives about alcohol. Changing students' ideas about the normative drinking behaviors in order to moderate their

alcohol intake adds to the skills training protective strategy, and seeks to change whole-campus behavior rather than that of one individual.

One method of social normative strategies is to administer a survey with some personal feedback on how a student measures up to his or her peers. Agostinelli, Brown, and Miller (1995) used this personal feedback approach via mail as a way to provide information to a student on his or her alcohol behaviors. Their assumption was that students who tend to binge drink misjudge the amount of alcohol consumed by their peers in effect, raising their personal standard of what constitutes as normal drinking behavior. Agostinelli et al. used self-regulation tactics to hypothesize that students would change their behavior once they understood that their drinking patterns were abnormal to their peers. Because the study was to measure the behavior change of heavy drinkers, only a small, convenience sample of students participated; however, the results that returned were positive and heavy drinking decreased in that population.

The expansion of social normative strategies for alcohol education was a response to the U.S. Department of Education's *Higher Education Center for Alcohol and Other Drug Prevention* programming initiatives in 1993 (Center for College and Health Safety [CCHS], 2009). When describing the history, authorization, and philosophy behind these initiatives, the Center for College and Health Safety stated that:

Research shows a requirement for a broader approach; one that seeks to change the social and cultural environment in which students make decisions about alcohol and other drug use and that uses multiple strategies. Students' choices are shaped by campus social norms, the accessibility of alcohol and other drugs, the extent to which school policies and state laws are firmly enforced, and the availability of non-alcohol social options. All of these environmental factors are subject to influence through programs and policies at

the campus community level. Prevention strategies that seek systemic change in the campus environment are more likely to create lasting change. (CCHS, 2009, Department's Philosophy section, ¶ 7)

Following this mission, Northern Illinois University (NIU) responded with the implementation of a social normative media and marketing campaign to target and reduce binge drinking on campus (Haines, 1996). Mass media messaging strategies can be a useful method when dealing with residential campuses, and should utilize the popular forms of media – such as the school newspaper – in addition to formal media outlets such as bulletin boards, posters, flyers, and mailings. Haines found that aside from identifying the proper communication channels, the marketing content was crucial in ensuring the success of the campaign.

Initially, NIU used negative data associated with drinking to convey their message. With statistics detailing the number tickets written to students driving under the influence, the percentage of deaths associated with alcohol use or the increased sensitivity to physical or sexual assault, there was no response to the campaign. Haines found that it was more effective to use messages highlighting “positive and moderate drinking norms, while ignoring nonnormative and negative data” (p. 11). Examples of these associations are: (a) only two percent of college students are arrested for a DUI, (b) most students drink five or fewer drinks when they party, and (c) 88% of college students who drink do not get hurt or injured (Haines, 1996). These examples of redefining social norms recognize that the majority of college students do not let alcohol hinder their safety. It is important to note that, in dealing with this type of campaign, it is easier for students to remember “most” versus a number or percentage.

Over the course of six years, the NIU media campaign incorporated popular culture, pictures of everyday NIU students, and truth into their advertising. Haines' (1996)

recommendations when developing a social norms campaign are (a) to keep it simple, (b) tell the truth, (c) be consistent, and (d) highlight the norm of moderation. The recommendations are simple and, in a social norm strategy program, can be adapted depending on the drinking culture of the campus. Social norms can be “powerful agents of control” (Perkins, 2002, p. 164) as the students’ choices are framed by their perception of the norms associated with the groups or people much like themselves.

Social normative strategies provide a standard or cultural expectation for students, accounting for peer influence in the frequency of consumption and levels of alcohol use. Social norms campaigns reach a larger population and increase the knowledge base students receive from protective behavior strategies. Their behaviors shift as they strive to relate to their peers and move away from abnormality.

Web-Based Alcohol Education

With the rise in computer-based programs for health education (Chiauzzi, Green, Lord, Thum, & Goldstein, 2005; Wall, 2007), alcohol education creators are utilizing web-based methods to provide interactive tools for students to learn about and survey their drinking behaviors. Programs such as AlcoholEdu, MyStudentBody: Alcohol, College ALC, and e-CHUG educate students about alcohol consumption through social normative techniques and skills training (Bersamin, Paschall, Fearnow-Kenney, & Wyrick, 2007; Chiauzzi et al., 2005; Croom, et al., 2009; Wall, 2007). Because of the newness of this phenomenon, the research in the area of web-based alcohol education is minimal. Still, findings have been consistent when measuring the effectiveness of the programs and the correlation of course completion with the changes in attitudes about heavy drinking.

The Internet, podcasts, and search engines have become some of the most common methods for people to obtain data regarding their health (Wall, 2007). Websites are taking advantage of wired campuses to provide an understanding on issues that greatly impact college students such as substance abuse, sexual awareness, mental health, and hazing. This “information-based approach in combination with interactive activities afforded by web-based technology” (Croom, et al., 2009, p. 445) has not been evaluated in depth, yet it has a case for value in the millennial generation. With the ability to reach large numbers of students, courses can take as little as 20 minutes, four times a week to complete and are flexible in order to accommodate a student’s schedule. Each of the six main web-based education programs allow for students to exit mid-course or -survey and return without losing their results. The programs have streaming videos, case studies, interactive diagrams, quizzes, and pictures of average students (Chiauzzi, et al., 2005). Essentially, it is a display of online social normative strategizing.

Initial research on web-based alcohol education programs have collectively seen a decrease in the frequency of heavy drinking and the levels of alcohol consumption for college students within the 4 to 6 week period students are studied through the course (Bersamin et al., 2007; Chiauzzi et al., 2005; Croom, et al., 2009; Wall, 2007). In 7- to 12-month follow-ups, these researchers reported that while the intervention showed immediate results, the long-term effects did not reflect any education. The frequencies and levels of drinking matched that of their non-educated peers. These findings present a major gap in web-based alcohol research as there have not been enough studies conducted longitudinally to determine the long-term effect of web-based programming. Additionally, there have not been studies that have implemented one

program continuously for an entire academic year. As web-based education matures, it can be assumed that the gaps in the research and shortfalls to previous studies will be addressed.

Summary of Literature Review

This review of literature provides a foundation of knowledge to support the study subsequently described. As research evolves in the field, education strategies continue to build on the basic frameworks of protective behavioral methods and the social normative approach of alcohol education. In particular, research reveals that these methods work differently for men and women. Web-based programs are being adopted as an effective method of programming based on the demographic of today's technologically savvy student. There has been limited research on the effectiveness of this type of programming; therefore, this study will supplement current data on web-based alcohol education.

Chapter III: Methodology

The goal of this study is to better understand the role that web-based alcohol education can play in addressing binge drinking on college campuses and expand on the existing research around web-based education. The methodology of this study addresses the following research questions:

1. How do college women view alcohol education?
2. What are the attitudes of college women towards web-based alcohol education programs?
3. To what extent does drinking behavior change as a result of using web-based alcohol education programming?

Institutional Profile

In 2002, the President of State University made some changes in regards to the public image of the institution, with the ultimate goal to be known solely as an academically driven, world-class research center (Ellison, 2002). After bringing in a consulting firm as well as creating an internal marketing committee focusing on rebranding the institution, the first move eliminated State University's nickname. The President's intentions in doing so was to begin correction the institution's reputation and rebrand the school as one that is known for academic success, not partying. Along with the public relations consultants and internal committee members, the nickname implies the partying image that had existed up until the early 2000s. In conjunction with a name change, State University also created a new logo, changed the institution's slogan, created a new drug and alcohol policy, amped up the media attention for the new bioscience grants and research, and addressed the Greek row housing, where along with Greek members, State University upperclassmen rents out homes. In an interview with a regional

newspaper, a current faculty member said that in the past 10 years, the neighborhood has, “in some cases, [turned into] high-density slums” (Ellison, 2002, ¶48) primarily due to excessive partying and drinking.

The new drug and alcohol policy - carried out by the institution’s student conduct office and health and wellness department - penalizes students on a “three-strike, you are out” system. With alcohol or drug offenses, the student acquires a strike and must attend a course that includes web-based alcohol education programming as well as small- and large-group counseling sessions (Counseling Services, 2010). In the first semester of implementation, over 70 students received a strike (Ellison, 2002). The early 2000s also brought education and programming change in the Greek community. In response to deaths and assault at another university in the state, State University required Greek student attendance at programs focusing on alcohol, sexual assault, diversity, and hazing. Each academic year, student exposure to alcohol programming is in small- and large-scale lecture formats with professional speakers who discuss the impact alcohol has on the body, mind and lives of students and family. Additionally, the sorority women must complete a web-based alcohol education program, a mandate issued by their (Inter)National organization. Each of these State University programs or policies contributes to students’ knowledge base about alcohol education.

Regardless of the level of education, the drinking atmosphere at State University is present. On- and off-campus alcohol offenses totaled 634 in 2009 and in that same year, there were 32 reported alcohol detoxifications, 329 controlled substance problems, 220 issued DUIs, 55 overdoses, and 91 unconscious persons (WSU Police, 2009; City of Pullman Police Department, 2010). The data does not allow determination of the type of person reported; therefore, an assumption is that the majority of these reports are a reflection of the student body.

This assumption relies on the evidence that the campus total is about 75 percent of the city's population (U.S. Census Bureau, 2000).

Participants

The method for participant selection was purposive sampling, “the process of selecting a small number of individuals for a study in such a way that the individuals chosen will be good key informants who will contribute to the researcher’s understanding of a given phenomenon” (Gay, Mills, & Airasian, 2009, p. 135). The subject selection was intentional in that the participants were required to be insightful, open, and comfortable in the focus group environment. This aided in obtaining the information needed to make valid conclusions about the purpose of this study. Purposive sampling dictated the type of participant selection that met these qualities.

A two-week long advertisement on a major social networking site and direct email messaging (see Appendix F) asked for participants and directed interested students to the online survey. A rolling application process took place and applicants were accepted until each group met a quota of a least five students. Prior to the participant recruitment process, there was a different expectation for focus group composition. Due to the accessible sample population, there were very few respondents, which called for an alteration to the research methodology. The expectation was four focus groups, including both men and women. The population of men who completed web-based alcohol education was smaller than anticipated. Only one male responded to the study solicitations during the two-week recruiting period; therefore, the interviews continued only with women.

The participants included 11 women. Two women are 20, six women are 21 and three women are 22. All participants are members of a social sorority or women’s fraternity on the

campus and completed alcohol education as a requirement for their membership. In addition, one woman completed additional web-based alcohol education as a requirement to serve on State University's student conduct board and one woman completed additional web-based alcohol education to fulfill a sanction issued for a student conduct violation. In the survey used to collect demographic information (see Appendix B), all women stated that they drink alcohol and have had other forms of alcohol education including: (a) in-person programming, (b) pamphlet material or posters, (c) course-based lecture, (d) small- and large-group discussions, and (e) personal counseling for alcohol use.

Valuable insight and student perception on web-based alcohol education developed through the structured focus group interviews. In addition, focus groups allowed for follow-up questions to determine participants' reasoning or encourage them to provide more contextual information to an answer (Gay, Mills, & Airasian, 2009; Stage & Manning, 2003). As this study took place in the college setting, the participants were engaging with other students, "bouncing their ideas off one another and forming opinions based on conversations with others" (Stage & Manning, 2003, p. 50). The cues of the participants' body language and nonverbal responses presented an opportunity for the facilitator to seek more information or clarification about how a participant felt in response to a question. Individual responses of some group members encouraged another participant to expand on her ideas or reminded her of circumstances that contributed to the interview questions.

Instrumentation and Data Collection Procedures

There were two instruments employed in this study: (a) a brief, online survey (see Appendix B) and (b) focus group interviews (see Appendix C). The administered survey utilized SurveyMonkey.com (2009) and solicited information regarding participant contact information,

age, year in school, gender and exposure to alcohol education. Each response uploaded into a secure, password-protected database on the Survey Monkey website. The survey provided context to the groups' responses and creates a portrait of the respondents, which helps in determining whether the study is generalizable.

The focus group interviews served as the key instrument to assess student perceptions of alcohol education. The following research questions served as the framework for the focus group interview:

1. How do college women view alcohol education?
2. What are the attitudes of college women towards web-based alcohol education programs?
3. To what extent does drinking behavior change as a result of using web-based alcohol education programming?

A script included interview questions as well as follow-up or clarifying questions to probe for more information. The length of the focus group interviews was about 45 minutes to one hour and transcripts typed up from the session audio recordings reflect the data collected during the interviews. The research questions listed above guided the focus group interview questions. The women briefly explained their perception of the alcohol culture on campus, opinion of the effectiveness of alcohol education on campus, experience with web-based alcohol education, and the long- and short- term changes in drinking behaviors as a result of the web-based program. Follow-up and probing questions clarified students' responses and vocabulary, as well as encouraged students to describe their perspectives in detail.

Data Analysis

The descriptive data in the study came from the online survey offered to interested participants. This data guided the identification of female candidates, determined their eligibility based on use of alcohol and level of alcohol education, and provided contact information for scheduling. The participants who were not included in the study included men, non-drinkers and students who did not take a web-based alcohol education course. Only one candidate was eliminated, based on gender. All volunteers were contacted for scheduling. Of the 17 women contacted, 16 scheduled interviews and 11 attended one of the focus group sessions. For no other purpose was the survey used.

In the case of qualitative research, the data analysis begins once the study begins and there is interaction with the participants (Gay, Mills, & Airasian, 2009). Because this interaction carries on throughout the research, identifying the significant components of the study prior to any data collection continues to eradicate useless data. All valid information was categorized under one of the three research questions. When evaluating the data, some conclusions came to the forefront; however, premature interpretation of the data was avoided in order to not influence the results of the study. Consistency in coding and organization of the transcripts and surveys was crucial in determining data relevancy and the analysis process. The procedure for analyzing data in this study was adapted from Gay, et al.'s (2009) three-step process of reading and memoing, describing, and classifying.

The first step in analyzing the data was transcribing the audio recordings from both focus group interview sessions. Rereading each transcript as the audio recording played ensured reliability. After all person and place identifiers were removed, the transcripts were sent electronically to each participant asking her to validate the content. Upon approval from each

participant, the coding and analysis process began with note taking and the identification of major points pertaining to each of the facilitation questions. Five items surfaced as themes of the structure, timing or context of web-based alcohol education. These themes were: (a) institutional history or context as it relates to alcohol consumption, (b) the impact of campus culture and social norms, (c) student development in regards to maturation and reasons for drinking, (d) attitudes about general alcohol education strategies, and (e) attitudes about web-based alcohol education. These themes guided the next step of the analysis process.

After reviewing these materials, the describing process helped to create a holistic picture of all the data collected. This process “involve[d] developing thorough and comprehensive descriptions of the participants, the setting, and the phenomenon studied” (Gay, Mills, & Airasian, 2009, p. 450). Eventually a synthesis of the data - including the definitions, perspectives, and feedback of the participants - served as another platform in identifying themes, or trends. Throughout the data collection period in the focus group setting, asking clarifying questions about terminology or concepts that are not common knowledge was crucial to interpret the data correctly in the second phase of analysis.

The process of classifying the data compartmentalized the information into small units that were easier to analyze and interpret. To do so, noting common phrases, quotations, perceptions, or misperceptions about web- and non-web-based alcohol education programming naturally sifted the data into categories. This process clearly provided examples of data that supplemented the discussion for each theme in the findings.

Summary

The focus group interview format and data analysis for this study yielded an understanding of the perception of college women on the effectiveness of web-based alcohol

education programming. The monitoring of facilitation methods discouraged monotony in student participation. The interviews evoked conversation about students' attitudes and provided informal feedback about what type of education State University can enlist to have the most effective form of programming. Using these techniques, the analysis and discussion of the data can enhance the current literature about web-based alcohol education and help to create a holistic picture of effective alcohol education programming. More specifically, this study enhances the insufficient research on college women. As noted by Smith and Berger (2010), this is a niche of college student alcohol use that has not been thoroughly researched. The focus group interview format with questions specifically addressing how web-based alcohol education aided or deterred alcohol use contributes to this lack of research. The findings presented will inform the field and introduce opportunities for more research on college women and alcohol use.

Chapter IV: Findings

Introduction

This chapter presents the results and discusses the findings from the qualitative focus group research conducted on how college women perceive web-based alcohol education changes their drinking behaviors. The study employed the use of focus group interviews to answer the following research questions:

1. How do college women view alcohol education?
2. What are the attitudes of college women towards web-based alcohol education programs?
3. To what extent does drinking behavior change as a result of using web-based alcohol education programming?

Following the data collection period, analysis of the survey data and interview transcripts revealed some trends among the participants and themes within the transcripts. The survey revealed that all 11 women have drunk alcohol and participated in web-based alcohol education. Other forms of alcohol education listed were in-person programming, print material on campus and lecture-based education. The following themes directly address the research questions and support the literature reviewed in Chapter II. The themes identified are from the interviewee perspective and represent the common beliefs recognized from the focus group interviews. The beliefs are as follows, and they serve as the foundation and outline for the subsequent findings and discussion. Students believe that:

- The institutional context and stereotypes associated with alcohol use on this campus is drinking in excess.
- The campus culture or norm supports binge drinking.

- Peer influence is a factor in students' level of alcohol use.
- The level of maturity greatly impacts the level of success of alcohol education.
- The motive for drinking greatly impacts the level of success of alcohol education.
- Traditional forms of alcohol education are beneficial.
- Web-based alcohol education improves students' knowledge about alcohol use.

The categorizations of the themes are based on the structure of the literature review and the discussion for each thematic element addresses the research questions of this study. Concepts that stemmed from the interview discussions that are relevant to how college women perceive web-based alcohol education impacts drinking behaviors, are included and organized based on its relationship or relevance to other findings. While the research questions are answered with the data and discussion of each theme, the participants in the interviewing process rarely address gender differences. It is important to note that, because of the participant profile, the data represents the perspective of college women and their reflections on their experiences as undergraduate women on campus. Therefore, this section presents the findings of general student behavior and their perspective on the campus culture and education strategies. In providing data evidence to support the themes, all identifiers have been removed. The women reference the host institution as well as other colleges and universities in the State. To identify these campuses throughout the findings, "State University" indicates the host institution, "University" indicates the urban state school, and "Western Region" and "Eastern Region" represent two of the regional, baccalaureate institutions in the state.

Alcohol Use on Campus

The themes in this section identify with and support the review of literature around the increased use of alcohol on the college campus and the general acceptance of the type of alcohol

use. The women addressed the institutional context, current alcohol culture and the prominence of peer influence as factors that contribute to alcohol use.

Institutional history. The participants identified the University as a campus that has a reputation for excessive alcohol use among its student population. The attention given to the institution, one participant believes, is because of its isolated location and concentrated student population.

...there is a huge association with [town name] and [State University] having the stereotype that there is a lot of alcohol use here especially. But I would have to say at [University] or [Eastern Region or Western Region] there is just as much, it's just places like [University] are able to hide it differently or better... (Student D, Lines 43-46, 2010).

In the past four years, there has also been a correlation between campus history and how students drink. An upperclassman in the participant pool said that during her first few years on campus, the trend was that students went out every night during the academic week. She then reflected on the current trend and frequency of drinking.

Now there's been a shift to, instead of you know, consuming moderately to...go big or go home on the weekends, so everyone is cramming it all into two days and it seems like people are just drinking a ton more on the weekends. (Student L, Lines 53-56, 2010).

This style of drinking has redefined the State University drinking culture as one that allows for a lower frequency of drinking and a higher quantity of drinking versus the higher frequency and lower quantity of years' past.

Current alcohol culture. The women identified binge drinking as a cultural norm at State University. While focusing primarily on the visibility within the fraternity and sorority community, the women also acknowledged the prevalence of alcohol use off-campus and among

non-Greek students. Regardless of the location, one participant said that “overindulgence is key” (Student H, Line 37, 2010) and a culture that encourages “drink[ing] as much as you can as fast as you can” (Student K, Line 41). Regardless of the party location and student-affiliation or non-affiliation with an organization, kegs of beer, shots of hard alcohol, wine, and champagne will always be available.

I think that there is a[n]...association with just Greeks using alcohol where in fact, using alcohol frequently with social interaction happens, I would say, just as much if not more off of the Greek campus. (Student A, Lines 40-42).

Along with the common use of alcohol, one woman identified the issue of how much freshmen drink compared to upperclassmen.

Especially when you are younger, like the new members coming in, a lot of them don't know their limits with alcohol and so they try and go as hard and fast as they can, thinking that they are invincible and they're really not. (Student J, Lines 41-44, 2010).

Aside from the accepted norm for the amount of use, participants also acknowledged that because of the campus location, students also use alcohol because of boredom and drinking is something to do.

As far as the alcohol culture on campus, I would say that we use alcohol regularly in our social events. It is form of entertainment considering we are in a small town...so it just becomes, maybe not the general focus always, but a part of things that go on on campus... (Student C, Lines 35-38, 2010).

Peer influence. A major factor in how or why students drink on this campus is peer influence and the social pressure to drink. Peers influence students' attitudes about alcohol consumption and the method for educating students about alcohol use. Specific to this campus,

an annual activity following formal sorority recruitment is drinking from noon until midnight, referred to as “12 to 12”. After the women have been “dry” (not allowed to consume alcoholic beverages) for one week, the members of the Greek community frequently drink dangerous amounts of alcohol. The upperclassmen then set the example for the new members.

I think that upperclassmen can really make an affect for what they are telling the freshmen. They can mold the drinking culture. I look at the way the pledge class above me was taught about the drinking culture at State University and the pledge class after me and the way that they conduct themselves when they are out is completely different based on how their upperclassmen introduced them to... 12 to 12 or whatever it is. That plays a huge role too. (Student C, Lines 245-251, 2010).

Another woman spoke about how 12 to 12 “creates the standard for a lot of women so then a lot of freshmen think that that’s normal” (Student E, Lines 148-149). Student E said that because the web-based alcohol education program is completed after the beginning of the semester, the students are already indoctrinated into the binge drinking patterns.

Some women said that they have tried to positively influence their new members by discussing what acceptable and unacceptable behavior is, as well as explain how the activities that take place on 12 to 12 are abnormal to the average weekend on campus. Another participant spoke up and said that those women lose credibility because those upperclassmen blackout or drink excessively.

Student Development

A consensus among the participants was how developmentally, many of the students on campus who are taking an alcohol class or attend a program do not always change their behavior

because their experiences have not encouraged them to do so. In effect, they labeled this as the influence of maturity.

Maturation. Throughout the interviews, one underlying theme of student development and alcohol education strategies was experiential learning, or making meaning through maturation, experience, and reflection.

I think maturity is a big part of [knowing your limits]. I also think it's that point in your college career where most people realize why they are going to college and that professional switch starts to switch on and you start to go, "oh ya, ya, this probably won't look so good on a resume" or on the Facebook... [so] you might still drink as much as you did when as a freshman but you might do it in a more responsible way. Maybe it's spaced out over six hours instead of six minutes. (Student C, Lines 140-146, 2010).

Another woman addressed the value in experience and the effect it can have on a students' decision-making around alcohol use, even in one semester.

I think [drinking responsibly] just comes with experience and maturity. I know even in one semester I have seen freshmen going from not understanding and realizing what they are doing to suddenly being able to understand how many drinks they can have not because of a class but, but just because of the experience. (Student K, Lines 288-291, 2010).

Reasons for Drinking. In one interview, the reasons for drinking emerged whereas in the other interview, there was a general understanding about why college students drink. In support of the literature discussing motivational factors for drinking and the national trends, these women said students drink to get drunk.

That's why they are going out. That's their point. To get as drunk as fast as you can. And you know...get taken advantage of as fast as you can. I mean, I know that that's not really your end goal but it's like, "who will notice me? How drunk can I get within an hour so I feel comfortable at this party to go grind on some cute guy?" (Student H, Lines 410-414, 2010).

As stated in the section regarding campus culture, students also are drinking because there are not other things to do that do not involve drinking, only because of the campus location and environment.

Attitudes About Alcohol Education

The interviewees identified the forms of alcohol education, aside from web-based, that they have seen or experienced while at State University. All participants had attended a mandatory alcohol program because of their Greek affiliation and all of the participants were invited to attend an alcohol program hosted by their respective residence hall during students' first year. Despite the invitation to attend the alcohol program, a majority agreed that they did not want to attend the program. In fact, Student C said that the residence hall sponsored programs were optional and "people came down for the food then left" (Lines 111-112, 2010). One woman said that if she had not joined a sorority, she does not think she would have received any alcohol education.

Apart from the type of alcohol education, few participants mentioned how the frequency of that education also plays a role in how effective it can be.

I think initially [alcohol education is] very beneficial but I think it hasn't been repeated enough to upperclassmen. It's required for freshmen and I think your freshman year, you are still learning more, and kind of not learning at the same time, so it takes you awhile

for that learning curve to really take place. So I think as a sophomore you are sometimes a little bit smarter and little more aware, so if you were to redo the alcohol education, you would kind of take it to heart more because you have had the bad experiences that you had as a freshman... And so I think it's worthwhile, but it just needs to be maybe a yearly thing...Just like a reminder. (Student D, Lines 65-73, 2010).

This frequency, however, is not as valuable as personal experience as one participant stated and the focus group confirmed with nodding.

I like how we have to learn about it every year for that reinforcement because a lot of the things that you hear the first time you don't retain. I also think it depends, the effectiveness of whatever program you are going to, is going to depend on your state of mind when you go there. So...I didn't drink all of my freshman year and through my sophomore year and [when] I turned 21 and my birthday was a disaster in a sense. I had no idea what I was doing because I had been to all the programs and...I knew all the information but it didn't mean anything to me. So, in a way...the most effective alcohol program I have been to was one we had this semester because I had already had the bad experience with [alcohol]. It was basically the same program that we've...been hearing for the past two and half years, but it actually meant something that time. (Student G, Lines 106-116, 2010).

Attitudes About Web-Based Alcohol Education

The participants in this study had taken the web-based alcohol education program called AlcoholEdu within the past one to four years. Each participant said that when looking back, the program had not positively impacted their drinking behaviors; however, the women felt that the program changed their knowledge base.

I think that it really helped with the knowledge and not the behavior. I definitely knew but I wouldn't, it wasn't making me change my life. I just, when I went out you know, you start drinking and maybe at first you, you thought about it but I...just didn't do it after awhile, I just forgot. (Student E, Lines 390-397, 2010).

Many of the women in the focus group agreed with Student E's comments and in response, Student D said that people do not "think about the consequences until [they] learn the hard way" (Lines 400-401, 2010). Even then, some students do not change their behaviors because the consequences of drinking did not directly affect the individual. Even with the amount of education students receive on this campus, Student D explained that a few of her sorority sisters still drive drunk despite the fact that one of their members was killed in a drunk driving car accident the previous summer. Student F said that she thinks this is because students in this age group approach life with a mentality that these negative consequences will not happen to them and Student K said that the younger members see themselves as invincible.

Short-term impact. Addressing the findings and short-term impact of web-based alcohol education shows that while there is a great expansion of the students' knowledge, it was rare that the program greatly impacted their drinking behaviors.

From a student conduct perspective, when we give that the first time that they mess up, or get a strike or whatever...they have the attitude "I just messed up one night and now I'm getting in trouble for it". What is really interesting is when repeat offenders have to go through it because you basically give them the option of this or [they] don't get to come back to school and so that completely changes their perspective. [They realize] their behavior is having an effect on other aspects of their life and *then* they begin to take it seriously. (Student C, Lines 291-297, 2010).

When asked to reflect on whether the information retained through alcohol education is attributed only to the web-based course, the women said that it was more of a combination between in-person programming, talk among peers, posters in their chapter facilities, and the web-based course. Unless something happened to her as an individual or she witnessed a friend in trouble from drinking, those facts and case scenarios in the web-based program seemed irrelevant.

One participant described how her peers used the web-based alcohol education as a challenge or contest.

...some people have used it as a challenge. ...I know some girls who would [say], "... I weigh 120 pounds and it says I can only have like four drinks a night, and I am on my...seventh... Look at me, I am just destroying this AlcoholEdu and all their facts", you know. And so I think that some people kind of use it as a bad tool in the end. (Student J, Lines 269-274, 2010).

Some women discussed the impact of the environment in which someone is taking the course is crucial for information retention. There was an example provided of how a sorority new member class sat together with some upperclassmen to get the answers on the quizzes.

We sat in a big room with all of our laptops...and you would just like yell out a question you didn't know the answer to and someone else would tell you, because we'd have our sophomores who had just taken it and they knew [the answers]. They had a printout maybe or something, or they took notes when they were taking it so they could help all the freshmen get it done. (Student D, Lines 134-138, 2010).

The following presents a different perspective of how one woman participated in the web-based alcohol education.

[It] makes a difference on whether it's the group or individual because for me, I did it by myself. I was outside on the lawn just...doing it, and it's been two and half years and I can still remember videos and still remember things that I learned from that. And so I think that it kind of would be effective if someone was required... to be alone or something. If they are in a group with other people, you're being affected by the like, "oh, I think that's dumb and I don't think that this..." and they are like, "oh I think the same thing", you know, and so I think that definitely has an effect on it. (Student E, Lines 252-260, 2010).

Long-term impact. Much of the discussion based on the effectiveness of web-based alcohol education focused on the mid- to long-term impact on drinking behavior. While the response for immediate change was neutral, there was a more unfavorable response to drinking behavior on a long-term basis. Unanimously, the participants said that web-based alcohol education made them think twice about how they were drinking but it did not actually change their drinking behavior or that of their peers. The women attribute that to the format of the program and the ability to click through without needing to pay attention.

It becomes a click-through process where you just click through the buttons, read and answer the questions and so while maybe they pick up...10 percent of the information that really catches their eye it's not really engrained. (Student C, Lines 75-78, 2010)

Another woman addressed her ability to mute the program and utilize the internet to complete the course quizzes, as well as the value of in-person programming.

And I think with the online, too, we don't learn as much because, I know for me...I was able to watch TV and take the test, because the questions they ask you can look up online. And so, it's not really as effective as listening to someone's personal story where

... I have an experience that can relate or... I could see that happening versus giving me some random statistics where some might stick out but for the most part, I can just look them up online if I am really curious. (Student K, Lines 129-134, 2010).

Some participants compared short- and long-term behavior changes and how if stated properly, the message of the alcohol education can have an influence. Primarily addressing the priorities of the student audience, women might be more inclined to change if they were educated on how the use of alcohol could change their appearance.

...we are collegiate women, everyone's afraid of the like freshman fifteen - Greek or not - and...maybe if you said, "within one year you will be clinically obese if you keep drinking like this", you know? I know that that sounds really stupid and superficial but if nothing else, it'd be like a lot of people would really take that into consideration, their wealth, their health...their well-being in a year rather than the potential of being an alcoholic in forty. (Student H, Lines 360-367, 2010).

This message was also addressed by sending messages about the increased chance of liver cancers. Student K said, "I feel like we think of the short-term...outcomes more than the long-term...I'm having fun for the short term so I'd rather live it up while I'm still here" (Lines 368-371, 2010).

Non-Greek required web-based alcohol education. To expand the narrative on students' attitudes about web-based alcohol education, a question asked the participants about students who were required to take the course because of a State University mandate. One participant spoke to this based on personal experience. She was required to take the campus IMPACT class that included a web-based alcohol education course, one small-group discussion and one large-group discussion. Some of the participants in the class were Greek and others were

not. She said that there was benefit to the class because of those discussions and it helped her centrally process the course materials through group dialogue and reflection.

You first have to take an online course...and then, a follow-up group meeting, just like a bigger group and it was really awkward. And then, you go to a smaller group meeting where there was just like five of you and you sit in a circle and you... I kinda liked the bigger group where you were able to talk about things. It took people a little bit of time to open up but it was nice how it started with online and then we had to pass that course. With the online course, you...brushed through, you know, set it aside, didn't really think about it, and then more questions arose once you got to the meeting/group interview. It was cool to kind of centralize it and have small focus groups because I think I learned the effects a lot better than me doing it on my own. I liked how it narrowed down to, actually working with people. (Student A, Lines 268-286, 2010).

Summary of the Findings

The data collected in this study represent the perceptions of 11 college women and have indicated that web-based alcohol education does not have a major impact on their drinking behavior. To logically organize the data utilizing the information presented in the literature and the research questions, the findings were structured using the following categories, based on the students' beliefs: (a) institutional history or context as it relates to alcohol consumption, (b) the impact of campus culture and social norms, (c) student development in regards to maturation and reasons for drinking, (d) attitudes about general alcohol education strategies, and (e) attitudes about web-based alcohol education.

Institutionally, the students feel that the atmosphere and history of State University has perpetuated an alcohol culture that encourages binge drinking. The choices made to drink are a

result of boredom, accessibility to alcohol, and a social norm that drinking excessive amounts of alcohol quickly is acceptable. Part of this culture and social norm includes the influence of peers' attitudes and beliefs not only around drinking activities but around the education process as well. With upperclassmen openly stating how the web-based alcohol education course is a waste of time, the new members dedicate little to no time learning the material to pass the quizzes. The one participant who did spend time completing the course did say that she still remembers the information and she benefited in the sense that her knowledge about alcohol use grew.

While the education does provide information and makes them students more knowledgeable on alcohol use, the women pointed out that until a student experiences the consequences of binge drinking, their behaviors will remain the same. Again, factors that deal directly with the campus location or culture regarding the use of alcohol seem to have set a stage for irresponsibility. The women acknowledged the benefit of in-person alcohol programming because of the personal connection with the speaker versus the web-based program that allowed her to mute the program or click through without investing any time.

The findings presented valuable information that speaks to the impact web-based alcohol education has on students' drinking behaviors. A bridge between the findings and the literature review were apparent and the research questions were answered clearly. The next section will discuss these findings in more depth to conclude the presentation of this study.

Chapter V: Summary and Conclusions

Introduction

The focus of this study was to determine if college women perceived web-based alcohol impacted their drinking behavior. It addressed the following research questions:

1. How do college women view alcohol education?
2. What are the attitudes of college women towards web-based alcohol education programs?
3. To what extent does drinking behavior change as a result of using web-based alcohol education programming?

Using focus group methodology, two groups comprised of 11 undergraduate college women shared their beliefs about the topic of study. This data was categorized under themes addressing institutional context and alcohol consumption, campus culture, student development, and attitudes about general and web-based alcohol education strategies. As the findings support the literature reviewed, a discussion of these connections is at the end of the chapter, prior to the recommendations for State University.

Relevance of the study. Chapter I presented the problem statement and need for this study as it relates to higher education. The problem is that there is a lack of effective alcohol education on college campuses and students continue to engage in high-risk drinking behavior. Binge drinking on college campuses has been the focus of attention for many higher education stakeholders and as such, programs have been developed to encourage students to make better choices. The lack of effective programming was confirmed as a problem by the participants. The need for the study was also confirmed in the findings, as the students discussed their concern about binge drinking and the need for relevant education. Presenting the opportunity for

effective, relevant educational programming to the student population will address this need and hopefully scale back the level of binge drinking on campus.

Conclusions and Discussion

To clarify the results of this study, each research question will briefly be addressed and discussed. Additionally included are the connections of how the study relates to and supports the literature review in Chapter II.

How do students view alcohol education? The women in the focus groups stated that the general alcohol education on campus including course lectures, in-person programming, print material provided by health and wellness services, and posters in their chapter houses, all have provided them with a great general overview of alcohol use. They view in-person programming to be effective because the students are better able to connect with someone who is educating them based on experience. With some factual data and statistics, and methods for dealing with binge drinking or helping a friend, the students found this method of education both relevant and applicable.

What are students' attitudes towards web-based alcohol education programs? The women in the focus groups stated that the web-based alcohol education programming was ineffective. The web-based course was set up so the student could mute the program and do other things until it was time to take the quiz. Because she did not listen to the video or read the material, she looked up the quiz answers online to pass each section. Much of this practice came from the influence of older chapter members who said that the course was not worthwhile and the new member could spend a limited amount of time just to fulfill the requirement. The one participant whose knowledge greatly benefited from the web-based program had completed the course on her own without any outside distractions, including her peers or the television.

To what extent does drinking behavior change as a result of using web-based alcohol

education programming? The women in the focus groups said the web-based alcohol education programming did not change their drinking behavior during or after course completion. Both focus groups concluded that the program heightened their knowledge of alcohol use but it did not influence their choices about the frequency, quantity or nature of their alcohol use. Some women described this as an influence on her “self-narrative” (Student H, Line 251, 2010).

Based on the summary of findings described in Chapter IV, the overall conclusion among the participants was that web-based alcohol education is not an effective method of education for positively impacted students’ drinking behaviors. Instead, it is clear that a student’s experience shapes the decision-making around the frequency and amount of alcohol consumption among students. It is possible that the experiences students have are attributed to maturity; or, a student’s level of maturity may be a reflection of how they have reflected upon their drinking experiences. The consequences of binge drinking effectively educates students on their drinking limits, how their body is affected by alcohol, how they feel after drinking, and the impact drinking has on their academic performance, relationships or physical and emotional well-being.

Support for the Literature

The literature discussing social norms in Chapter I explain how redirecting a campus culture towards more moderate alcohol use contributes to a decrease in excessive alcohol use. This supports the findings of the current study, as the women discussed how the institutional history and campus culture encourage binge drinking. As one student clearly stated, “overindulgence is key” (Student H, Line 37, 2010) and this concept is encouraged by the social norms on campus. Immediately upon arrival, indoctrination into a culture of excess and drinking

as much as possible in a short period presents a norm for first-year women. When looking at the recommendations, shifting the social norm at State University can mediate this issue.

Smith and Berger (2010) lead the studies on drinking among college women, specifically focusing on how and why college women drink. There are many parallels in the Smith and Berger research and the current study, primarily regarding motivational factors for drinking and how women retain information. They found that the women in their study believed alcohol made them more promiscuous. One of the women in the current study said that women ask, “How drunk can I get within an hour so I feel comfortable at this party to go grind on some cute guy?” (Student H, Lines 412-414, 2010). This statement supports Smith and Berger’s motivational factor addressing mating and men. Many of the women in the current study referenced blacking out, hangovers and vomiting throughout the interviews. These, too, encompass a section of Smith and Berger’s research addressing the physical consequences of drinking.

In their discussion, Smith and Berger (2010) recognize that new methods of education will better-inform women of the dangers of excessive alcohol consumption. In the current study, one woman took the web-based alcohol education course to fulfill a State University sanction and discussed how talking in groups helped her process what she learned online.

With the online course, you...brushed through, you know, set it aside, didn’t really think about it, and then more questions arose once you got to the meeting/group interview. It was cool to kind of centralize it and have small focus groups because I think I learned the effects a lot better than me doing it on my own. I liked how it narrowed down to, actually working with people. (Student A, Lines 274-278, 2010). Smith and Berger note this in their research, stating that they believe using techniques built around relationship building will help women internalize the information and align their

attitudes and behaviors. As such, reframing alcohol education around conversations will help students identify their beliefs, determine the norm around alcohol use, and control their surroundings to support behavior change. This implementation of the theory of planned behavior guides the recommendations section of this study.

Recommendations

The findings suggest that alcohol norms at State University necessitate change. The research conducted on social norms and Smith and Berger's (Smith & Berger, 2010) studies on drinking among college women show that with a values adjustment and intentional reframing of the web-based alcohol education program, college women reap greater benefits from this style of programming. To guide the recommendations, the theory of planned behavior serves as the foundation to and framework for the following. Prior to introducing the recommendations, a brief discussion on the theory of planned behavior describes the efficacy in regards to alcohol education.

Theory of planned behavior. Icek Ajzen (2005) outlined the theory of planned behavior with three foci: (a) the student's attitude toward behavior (personal in nature), (b) their "perception of social pressure to perform or not perform the behavior" (p. 117), and (c) their perception of their own behavioral control, primarily focusing on self-efficacy and ability to do so. To clarify the three determinants, the following discusses a woman deciding on whether to drink at a party. Because of the information the woman learned through an alcohol education course and a history of alcoholism in her family, she decided prior to the party that she would only drink water. The women she attended the party with decided that they wanted to drink to get drunk that evening, creating an environment not supportive of the woman's decision. Once at the party, everyone was drinking and because no one was paying the consequences of bingeing, she

decided to drink. The first determinant is her attitude towards drinking that evening. It was not in favor of the social norm or pressure to drink, the second determinant. Her friends' actions shifted her attitude about drinking at the party and she gave into the social pressure, changing her intentions and therefore, her behavior.

Especially in dealing with college women, because their female peers greatly affect their drinking patterns (Smith & Berger, 2010), there is a strong case for theory of planned behavior as it addresses perceived control of, or for, a behavior rather than actual control. Ajzen (2005) weighs social norms and peer influence heavily and in that regard, this framework is applicable to the population of college women. The recommendations of this study focus on Ajzen's three determinants. Because the centrifugal point of the theory is intention before behavior, subsequent to attitude toward the behavior, and perceived social norms and behavioral control, the recommendations provide an avenue for engaging college women in changing their intentions about alcohol use. These recommendations fall into categories representing attitude, culture (social norm), and behavior (perceived control).

With the implementation of the recommendations to reframe web-based alcohol education, the goals of making change follow based on the aforementioned categories:

- Attitude: College women believe excessive alcohol use is harmful and consequently, their intentions or motivational factors for drinking shift, positively impacting their drinking behavior.
- Culture: College women do not perceive heightened social pressure to drink in excess and therefore, excessive drinking subsides and a culture of moderate drinking becomes the norm.

- Behavior: The attitudinal and perceptive shifts around drinking alter the women's intentions about drinking in excess, directly causing them to change their behavior around alcohol use.

The categories outlining the goals for web-based alcohol education at State University guide the recommendations. The theory of planned behavior frames those goals and as a result, guides the recommendations. Because the scope of the study is limited only to college women, the majority of which took the course as a requirement for their sorority, each of the three recommendations considers this specific demographic.

Attitude

One issue identified by the participants was the attitudinal influences impacting how well students focus on the web-based alcohol education program. The following recommendations address this conclusion as well as the information provided by Student E, who stated that she retained more information because she took the course on her own without distraction or peer influence. Another finding suggested that upperclassmen have negative attitudes about web-based education and this directly impacts the attitudes of the first-year women towards completing the program. They do so hurriedly and in groups, hindering the process towards behavior change or control.

1. *State University college women take the web-based alcohol education course prior to their move to campus and/or their attendance in sorority formal recruitment.*

The reasoning for this recommendation is that the women will complete the course prior to experiencing the campus alcohol culture. Because of their assumed naïveté of the social norm and no direct influence by upperclassmen, the first-year women will approach the program with a more positive attitude. In doing so, there will be a

higher rate of information and knowledge retention before exposure to the campus culture, and the student will be more likely to assess their drinking behaviors before peer influence or a social norm influence their choice.

Culture

The women identified campus culture as a major factor in how the web-based program has lost value in the sorority community. Smith and Berger (2010), in their discussion on how college women drink, suggest that utilizing the importance of relationships among college women will improve alcohol programming. Creating an environment that encourages conversation around the social norm, helping women see the beliefs, attitudes and behaviors of their female peers, and evaluating how to exercise control around alcohol use reflect this suggestion.

- 2. Following completion of the web-based alcohol education program and for the remainder of the academic term, State University employs alcohol experts or campus counselors to conduct small- and large-group discussions around the program and what knowledge the women gained, how their attitudes about alcohol use shifted, and the impact the program has or will have on their behavior.*

This recommendation is a direct response to Student A's experience with State University's mandated alcohol programming. She described how the discussions aided in her knowledge retention, helped her peers ask clarifying questions and reinforced the message of the program. Because of the studied demographic, this recommendation is easily employable. All of the women who take the course are new members of a sorority and attend new member education meetings weekly at their chapter house. This is a consistent time and location for a professional to meet

with the women and discuss the course, their experiences with alcohol, and the consequences for alcohol consumption of either their peers or on a personal basis. In the large-group setting, an entire sorority organization, including freshmen through seniors, can meet to discuss social norms on campus, the women's motivational factors for drinking and the impact excessive drinking has on their academic, personal, physical and social lives. Recommended programming on the all-sorority level encourages large-scale education. While individual feedback is not as likely, one professional discussing the web-based program or alcohol use with the entire sorority community creates an even playing field; therefore, creating a common social norm.

Behavior

The participants did not think their drinking behaviors changed as a result of the web-based alcohol education; rather, attitudes towards excessive drinking changed and their knowledge base increased. Drinking behavior shifted as a result of the additional programming received throughout their undergraduate education. This small- and large-scale alcohol programming structure is already in place and contributes to the previous recommendation. To enhance the said recommendation and reach the goal of behavioral control and change, the third recommendation addresses the structure of the web-based alcohol education program.

3. *Organizations developing the web-based alcohol education programs expand the course material so it continues over the course of at least four months.*

The literature reviewed for this study presents the findings of previous research showing the lack of long-term results from web-based alcohol education (Chiauzzi, Green, Lord, Thum, & Goldstein, 2005). More specifically, web-based alcohol

educated students' behaviors replicate their non-educated peers three months after the conclusion of the program (Hustad, Barnett, Borsari, & Jackson, 2010). By extending the course, the student will spend more time reflecting on their experiences, essentially guiding them through their first four months as a college woman.

One method for implementing this recommendation is to intensify the material as the course progressed. Topics could include: (a) the basics of alcohol consumption (defining binge drinking and what is a drink), (b) the negative consequences of binge drinking, (c) the science behind drunkenness, blackouts and hangovers, (d) protective behavioral strategies and helping friends in need, (e) sexual assault and promiscuity, (f) alcoholism and seeking counseling, and the (g) long-term effects of alcohol use. Because of their experiences over the semester, the topics will become more relevant and applicable to the women's lives.

Concluding Summary Statement

This study found that while their knowledge about alcohol use grew, web-based alcohol education programs do not impact the drinking behaviors of college women. In some cases, the women used it as a challenge to drink more while others ignored the material entirely and clicked through the program as quickly as possible. The women's peers and role models in their sorority influence these decisions on how to utilize the program's information or complete the course. This fostered a negative attitude towards the web-based program and course material, resulting in the decision not to make a behavior change. The drinking norms continued to play out on campus because of the social pressures to drink in excess and the role modeling from upperclassmen, despite efforts to educate women on healthy habits with the web-based program.

Until the repeated large-scale programming, provided to all grade levels, the first-year women reinforced the norm with excessive drinking. The initial attitudes about the web-based alcohol education and indoctrination to the social norm of drinking in excess contributed to the women's behavioral control and choices around alcohol use.

With the recommendations provided in this chapter, web-based alcohol education can be an effective method for positively changing the drinking behaviors of college women at State University. The female cohort of this study is narrow; therefore, in order to make the greatest impact on the campus culture and social norms around alcohol use, further research on alcohol education among men requires attention. It is possible that implementing the recommendations only among women will have a natural effect on the drinking behaviors of the men and further study may not be necessary. Still, continued research on the drinking patterns, motivational factors for drinking, and the impact of drinking among college women is essential for the development of this field and progress in creating effective alcohol education programs.

Appendix A

Recruitment Methods for Participants

1. **Brief Messaging** via Facebook, email and postings in the classifieds of The Daily Evergreen and on WSU Announcements:
 - a. Seeking undergraduate students aged 18 to 23 to participate in a focus group study about alcohol education. It is encouraged that you have participated in some form of alcohol education (class lecture, voluntary or mandatory programming, online class). The interview will last only for one hour and free food and refreshments will be provided! To volunteer, please send an email to jmi.harrison@gmail.com.
2. **Word of mouth** through colleagues and students meetings:
 - a. Students will be encouraged to volunteer by emailing jmi.harrison@gmail.com.

Appendix B

Pre-Interview Survey

The responses on this survey are confidential and available only to the researcher. The answers are kept on a password-protected website and will not be printed.

1. **Name:** _____
2. **Phone:** _____
3. **Email:** _____
4. **Age:** _____
5. **Academic Year:** Freshman / Sophomore / Junior / Senior / 5th Year
6. **Gender:** Female / Male / Prefer to not answer
7. **Do you drink alcohol?** Yes / No
8. **Have you participated in web-based alcohol education (*AlcoholEdu, CollegeAlc, eChug, My Student Body, etc.*)?** Yes / No

Appendix C

Focus Group Facilitation Script

Title of the Study How College Women Perceive Web-Based Alcohol Education Impacts Their Drinking Behaviors

Researcher Jami Harrison, Graduate Student in the College of Education

Contact Email jmi.harrison@gmail.com

Contact Phone (206) 947-0890

Interview Time < 60 Minutes

The following script is for the facilitation of focus groups in the study on how web-based alcohol education is perceived by college students. Notes for the facilitator are in italics and outline time parameters and example follow-up questions. The script serves as a guideline for the interview sessions and questions that require answers numbered.

Meeting Room Preparation

- Seating will be in a round-table format, easy for discussion.
- Computer recording will be set up near the researcher.
- A digital audio recorder will be set up in the opposite corner of the researcher.
- Food and beverage is available to the participants.
- Two (2) copies of the written consent forms are signed by the researcher and set face-down at each seat:
 1. White copy is for the participant to take home
 2. Light green copy is for the researcher

Introduction

“Good afternoon. My name is Jami Harrison and I am a graduate student in the College of Education seeking a Masters degree in Higher Education Administration. I am happy you could join me in conducting research for my thesis. Before we begin, I would like to remind you that the conversation we have in the next hour is confidential. Following the completion of this interview, your name will be reassigned as a letter of the alphabet and all transcripts or documents related to this research will be coded with that letter. Should you, at any time, feel uncomfortable during the interview, you may step out of the room or ask to speak with me in private. If you have not completed the short survey, I will ask you to do so after the interview. Face down in front of you is a written consent form, outlining the purpose and need for this study, as well as potential risks you may face in participating. Please take a moment to review the document and sign on the second page of the light green copy. The white copy is yours to take home. *Wait for the group to read and sign the documents, resuming only when everyone has done so.*

Thank you. With your permission, I will begin the audio recording of our interview. *Pause for verbal consent by the group.* I would like to take the opportunity to introduce ourselves. As we go around the room, please tell us your first name, when you took the online alcohol course and if you are willing to share, why you took the course. If you want to, you can share any other information about yourself. Would you like to begin?

Opening Statement

Great! I am going to ask you five questions as they pertain to my topic of study: web-based alcohol education. We will start out with a general question about alcohol use on campus and as we progress through the hour, our conversation will become more specific to online alcohol education. I would like you to share your ideas, questions, experiences, concerns, and feedback

about alcohol education and in doing so, respect the opinions of your peers. You are welcome to ask any clarifying questions about the online programming format if you have forgotten.

Explanation of Discussion Format

This focus group interview will be an open dialogue. Your input and questions are important and shall be respected. I ask that each participant take turns in speaking and we allow each other to finish their comment before moving on. Because this is a study based on your perception, there is no right or wrong answer. Your input is very important and it is an opportunity for you to share your opinion about online alcohol education.

Interview Questions

- 1. To provide some context for discussion, briefly explain your perception of the alcohol culture on campus.**
- 2. So then, what do you think about alcohol education on our campus? Has it been effective?**

Follow up questions:

- What types of alcohol education do you see on campus?
- What limitations or shortfalls do you see in these forms of education?
- What are the positive attributes of these forms of education?

Clarifying / probing questions:

- Can you provide me with more clarification on what you mean?
- Please tell me more about that.
- How so?
- What is an example?

3. What was your experience like with the online alcohol class? What do you remember about it?

Follow up questions:

- What limitations or shortfalls do you see in web-based education?
- What are the positive attributes of web-based alcohol education?
- How many of your peers took an online class? Ok, so do you think they had the same experience as you?

Clarifying / probing questions:

- Can you provide me with more clarification on what you mean? Please tell me more about that. How so? What is an example?

4. Did your drinking behaviors change during the time or immediately after you were taking the class?

Follow up / probing questions:

- What about your peers?

5. Did your drinking behaviors change as a result of finishing the course? If so, did it change long-term?

Follow up / probing questions:

- What about your peers?

Clarifying / probing questions:

- Why? Can you provide me with more clarification on what you mean? Please tell me more about that. How so? What is an example?

Throughout the dialogue, ensure equal participation. Call on students who may not be sharing with a follow up question.

Conclusion

Thank you for your honest feedback today. Are there any more comments or questions to wrap up our conversation? *Pause*. I will be transcribing the interview once we are finished today and will send you a copy via email to provide you the opportunity to proof it for accuracy. The entire study will be complete at the end of the month. If you are interested in the results, please feel free to contact me. I will be here if you would like to ask any more questions. Otherwise, you may leave. Thank you again.

Appendix D

Informed Consent Form for the Recruitment Survey

Purpose The purpose of this survey is to recruit and place participants in one of two focus groups used to determine college women's perception of web-based alcohol education.

Methodology Once you have indicated interest in participating in this study and have emailed the researcher, a link to a password-protected surveying website will be sent to you. The questions asked in this survey will categorize you into one of the two (2) focus groups based on your responses.
The researcher will send an email to you upon the completion of your survey. A follow-up phone call will take place if the researcher does not hear back from you within 48 hours.

Data Collection The survey data will be exported into a password-protected spreadsheet and saved on the researcher's personal computer. The information in the survey will be accessed only when the researcher reports the general demographic of each focus group to provide the interview with context.

Potential Risks There is no risk in participating in this survey because all identifiers will be removed after the participant has been contacted to schedule for the interview.

Agreements As a participant in this focus group research study,

1. I understand that the study involving human subjects has been approved by the Institutional Review Board for the Protection of Human Subjects in Research.

2. I understand the purpose, methodology, and goals of this research project and the expectations of my participation.
3. I am aware of and understand any potential risks associated with participating in this study.
4. I am aware of and understand any potential benefits of this research and the affect on others or myself.
5. My confidentiality will be maintained and data associated with this research will not reveal my identity, however; the potential sharing of information from other focus group participants may breach this confidentiality.
6. I understand that the investigator is required by law to report certain information to government and/or law enforcement officials such as child abuse, harassment, threatened violence against self or others, and/or communicable diseases.
7. I confirm that the researcher used no methods of coercion in seeking my participation.
8. I understand that if I have any questions pertaining to the research I can contact the researcher at any time to discuss them via phone (206.9470890) or email (jmi.harrison@gmail.com).
9. I will receive no compensation for this study.
10. I will be able to request a report of the study findings from the researcher.
11. I certify that I have read and fully understand the purpose of this research project and the risks and benefits it presents to me as stated above.

Questions If you have any questions about this study at any time please contact Jami Harrison at 206-947-0890 or e-mail her at jmi.harrison@gmail.com.

Authorization You will be given a copy of this consent form to keep for your records.
Thank you for taking time out of your schedule to participate in this study.

Printed Name of the Participant _____

Signature of the Participant _____

Date _____

Printed Name of the Investigator _____

Signature of the Investigator _____

Date _____

Appendix E

Informed Consent Form for the Focus Group Research Study

Purpose The purpose of this study is to determine how students perceive web-based alcohol education affects students' drinking behavior.

Methodology In the next hour, you will be asked questions regarding your experience with web-based alcohol programming. Your comments will be tape recorded to maintain accuracy in your statements. In order to maintain confidentiality, comments in the transcription of the interview will not be attributed one particular individual. You or your name will not be connected with any statement, rather; your statements will be identified with an alphabetical indicator. There will be no master list connecting the names to the alphabetical indicator. While all participants will be asked to keep the interview comments confidential, there is a chance for breach in confidentiality if participants share information outside the focus group setting. The audio recordings will be stored in a locked filing cabinet in the researcher's home. Upon completion of the transcription and data analysis, the tapes will remain in a locked cabinet for no more than 5 years and accessed only by the researcher.

Data Collection The audio recordings will be transcribed and coded for themes. In order to clarify certain points of the interview, the researcher might use specific comments; however, real names will not be used to identify the comment. At any point, if you are concerned about a comment that you made please contact

the researcher, Jami Harrison, and you may ask to have a comment erased from the transcripts.

Potential Risks There is minimal risk in participating in this focus group interview. Any risk is associated with the study is the discussion of alcohol use and education. The Institutional Review Board categories of risk include the following:

1. Invasion of privacy to the subject or family
2. Psychological/emotional discomfort or distress
3. Social stigmatization

Agreements As a participant in this focus group research study,

1. I understand that the study involving human subjects has been approved by the Institutional Review Board for the Protection of Human Subjects in Research.
2. I understand the purpose, methodology, and goals of this research project and the expectations of my participation.
3. I am aware of and understand any potential risks associated with participating in this study.
4. I am aware of and understand any potential benefits of this research and the affect on others or myself.
5. My confidentiality will be maintained and data associated with this research will not reveal my identity, however; the potential sharing of information from other focus group participants may breach this confidentiality.

6. I understand that the investigator is required by law to report certain information to government and/or law enforcement officials such as child abuse, harassment, threatened violence against self or others, and/or communicable diseases.
7. I confirm that the researcher used no methods of coercion in seeking my participation.
8. I understand that if I have any questions pertaining to the research I can contact the researcher at any time to discuss them via phone (206.9470890) or email (jmi.harrison@gmail.com).
9. I will receive no compensation for this study.
10. I understand that I will receive a copy of the transcript to validate its accuracy.
11. I will be able to request a report of the study findings from the researcher.
12. I certify that I have read and fully understand the purpose of this research project and the risks and benefits it presents to me as stated above.

Questions If you have any questions about this study at any time please contact Jami Harrison at 206-947-0890 or e-mail her at jmi.harrison@gmail.com.

Authorization You will be given a copy of this consent form to keep for your records.
Thank you for taking time out of your schedule to participate in this study.

Printed Name of the Participant _____

Signature of the Participant _____

Date _____

Printed Name of the Investigator _____

Signature of the Investigator _____

Date _____

Appendix F

Participation Solicitation Documentation

Initial contact. The following message was sent to over 250 students at State University via the Facebook social networking site.

Good afternoon,

I have begun the actual research study for my thesis and need your help! I am studying students' perceptions of online alcohol education (AlcoholEdu, for example) and am looking for about 20 students who have taken one of these classes. I would like to have an even representation of age and gender, as well as Greek and non-Greek students. The students will be broken up into 4 focus groups for a one-hour interview (there will be free food, of course).

If you or any of your friends have taken an online class and would like to help me out, I would greatly appreciate it. Most of the folks who have recently gone through WSU's IMPACT class (received a strike with the University) have taken an online course and the majority of Greek students have as well. I have created a very short survey through Survey Monkey to get some basic information on participants and once there are enough people for the focus groups, I would set up some interview times. You can either forward this message along or give them my contact information (below).

Brief online survey link: <http://www.surveymonkey.com/s/PBBXGJK>

Thank you so much for your help! I understand if you are too busy - it is a crazy time of the year. Still, if you know of anyone who has an hour to spare, just let me know.

Jami

Email: jmi.harrison@gmail.com

Cell: 206-947-0890

Office: CUB 315

Additionally, an advertisement was solicited using the Facebook Ads platform and was linked to the SurveyMonkey survey. Based on the data collected by the Facebook Ad management platform, no Facebook users clicked on the link. This advertisement was targeted towards students who:

- Live in the United States
- Live in Washington
- Are Between the ages of 18 and 23 inclusive
- Are at Washington State
- Are in the classes of 2010, 2011, 2012 or 2013

The copy of this advertisement, along with an image of a beer stein, to catch students' eye, read as follows:

Free food! Seeing undergrads who have taken an online alcohol education class to participate in a 1-hour focus group interview.

Participation Scheduling Documentation

Follow-up with volunteers. The following email was sent to 18 survey respondents to schedule a focus group interview time.

Good afternoon!

Thank you for filling out and submitting the survey for my thesis project! Each of you will be the participants for the female focus group interview session. I have listed three

times below and ask that you respond with your availabilities as soon as possible. I am flexible with time so if the group prefers a later evening or weekend, we can do that as well. Again, this will be a one-hour, audio-recorded discussion about your perception of online alcohol education. We will have the interview on campus for your convenience.

Thanks again and enjoy the sunshine!

- Tuesday, March 2, 2010 at 3:00 PM
- Wednesday, March 3, 2020 at 10:00 AM
- Thursday, March 4, 2010 at 5:30 PM

Jami Harrison

e :: jmi.harrison@gmail.com

c :: 206.947.0890

Meeting confirmation. The following emails were sent to two different groups of women to confirm their focus group meeting date.

Good afternoon,

I have you scheduled for my focus group interview on **Tuesday, March 2nd at 3:00 PM**. I will be contacting you by Monday afternoon with the meeting location and to confirm your attendance. If your schedule has changed and Thursday at 5:30 PM is a better option for you, please let me know.

If you have not had a chance to fill out the short survey yet, please follow this link:

<http://www.surveymonkey.com/s/PBBXGJK>.

Thank you and I look forward to seeing you on Tuesday!

Jami

Jami Harrison

e :: jmi.harrison@gmail.com

c :: 206.947.0890

Good afternoon,

I have you scheduled for my focus group interview on **Thursday, March 4th at 5:30 PM**. I will be contacting you by Tuesday evening with the meeting location and to confirm your attendance.

If you have not had a chance to fill out the short survey yet, please follow this link:

<http://www.surveymonkey.com/s/PBBXGJK>.

Thank you and I look forward to seeing you Thursday.

Jami

Jami Harrison

e :: jmi.harrison@gmail.com

c :: 206.947.0890

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