BELIEFS ABOUT ALCOHOL AMONG COLLEGE STUDENTS IN FRATERNITIES: EFFECT OF A TARGETED EDUCATION INTERVENTION

by

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ABSTRACT

CORY GLENN SHEELER. Beliefs about alcohol among college students in fraternities: Effect of a targeted education intervention. (Under the direction of DR. KELLY POWERS).

Alcohol use is a significant problem on college campuses. Greek men in college fraternities consume alcohol in higher quantities and with increased frequency, which can result in negative health outcomes. The purpose of this project was to determine if a targeted educational intervention improved beliefs about alcohol among college fraternity men (N=40). Participants' beliefs were measured using the College Life Alcohol Salience Scale (CLASS) immediately before and after the intervention, and again eight weeks after to evaluate for sustained changes. Beliefs about alcohol's place in college life significantly decreased immediately after the educational session ($p<0.001$), but returned to pre-test levels on the eight-week follow up survey ($p<0.001$). A post-intervention satisfaction survey also revealed participants were highly satisfied with the education and receptive to receiving education on alcohol. Project findings indicate that fraternity students would benefit from more frequent educational interventions to help promote sustained improvements in their beliefs about alcohol.

DEDICATION

      I dedicate this to my entire family, who supported me during this endeavor. My wife Cyndi, my two children Connor and Camdyn, my mother Barbara and my late father Glenn are the people who matter most to me in this world. I could not have done this without their unending support.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

List of Tables and Figures

CHAPTER 1: INTRODUCTION

1.1 Background

Alcohol in fraternal organizations goes back as far as final exams. However, binge drinking by students with associated negative consequences is on the rise and this is especially true for fraternal organizations. One recent survey polled 3,400 fraternity men about their alcohol use. The response was staggering: 97% of the members were drinkers and 64% were "binge drinkers"- defined as consuming five or more drinks on at least three occasions in the past two weeks (Caudill, et al., 2006). In a systematic review of the literature examining the impact of Greek membership on alcohol benefits and behaviors, it was determined that Greek life promotes an environment and culture in which drinking is a key part of life and that Greek members are a subgroup that consumes alcohol in greater quantities (Barry, 2007). National news headlines are littered with by-lines each year that show the negative effects of drinking and Greek life. In 2017, four college fraternity men died as a result of alcohol abuse. The deaths earned national attention in the press. One notable example led to Florida State University banning all Greek life at the university after the death of 20-year-old Andrew Coffey, who died while ingesting a lethal amount of alcohol at a fraternity party off campus (Reilly, 2017). Interventions to improve beliefs related to alcohol are vital for the health and well-being of Greek men who are members of college fraternities.

1.2 Problem Statement

Alcohol is a significant problem on college campuses nationwide. In many instances, students develop harmful habits as early as high school, and the freedom, peer pressure and newness of college can often make it worse. A recent study showed that 60 percent of college students age 18 to 22 years drank alcohol in the past month. Of those students, almost two out of three binge drank during that same timeframe (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014). Perhaps the most worrisome trend with alcohol and college students is binge drinking. Binge drinking is defined as drinking four or more alcoholic drinks in two hours for women, and drinking five or more alcoholic drinks in two hours for men (National Institute on Alcohol Abuse and Alcoholism, 2018). By engaging in binge drinking, a person's blood alcohol level rises to the legal limit of 0.08 or higher. This can lead to many dangers such as automobile accidents, drunk driving arrests, sexual assaults and injuries (National Institute on Alcohol Abuse and Alcoholism, 2018).

In particular, Greek men that live in social fraternity houses tend to drink more in both quantity and frequency and as a result experience more adverse consequences than do non-Greek students (Caudill et al., 2006; Wechsler, Dowdall, Maenner, Gledhill-Hoyt & Lee, 1997). In regards to binge drinking, 70 percent of fraternity men reported binge drinking – which is 10 percent higher than non-fraternity men (Mccabe et al., 2005). In addition to this, it has been found that Greek men consume twice the amount of drinks per week when compared to non-Greeks (Cashin, Presley & Meilman, 1998; Wechsler, Kuh and Davenport, 2009).

Not surprisingly, the Greek community at The University of North Carolina-Charlotte (UNCC) has its own challenges in regards to alcohol abuse. In a campus report completed in 2011 by an outside consultation firm, it was found that fraternities at UNCC reported being unable to have substantial attendance at meetings unless alcohol was present. Additionally, "pre-gaming" before attending parties and binge drinking were both common behaviors (T.Jelke Solutions, 2011). More recently, a report surfaced in May of 2017 that was widely disseminated in the local media that outlined several alcohol related offense by UNCC fraternity Sigma Phi Epsilon. This led to the chapter's expulsion from campus and loss of its charter.

1.3 Purpose of the Project

Studies have demonstrated that targeted alcohol education programs can have a positive effect on reducing negative outcomes in college students and Greek members (Baer et al. 1992; Barnett et al. 2008; Larimer et al. 2001). Therefore, the purpose of this DNP scholarly project was to (1) provide an educational intervention about the dangers of alcohol abuse to fraternity members and (2) evaluate the effect of the educational intervention on fraternity members' beliefs about alcohol.

1.4 Clinical Question

This DNP scholarly project sought to answer the following PICO question: In college aged fraternity men (P), does alcohol education (I) improve beliefs about alcohol (O) from pre-test to post-test and are changes sustained at an eight week follow up (C)?

1.5 Project Objectives

The objectives for this DNP scholarly project were to: (1) Provide an educational intervention on alcohol to male college students in a fraternity and (2) Test the effect of

the educational intervention on male fraternity students' beliefs using a pre test, post test

and eight week follow up design

CHAPTER 2: LITERATURE REVIEW

2.1 Search Terms

A search of the literature was conducted using the databases CINAHL and Cochrane with the search terms fraternity, alcohol, and college. Twenty-three articles were queried and thirteen met inclusion criteria and were included in this review of the literature. Selected articles were included in this literature review to highlight findings related to alcohol problems among college fraternity students, as well as findings related to interventions for this topic. Search criterion were limited to peer reviewed articles and articles that focused on colleges in the United States. While this topic has been studied extensively in college students, few studies were located that focused specifically on college in Greek organizations. Therefore, the year limits initially set for this review of the literature were expanded to facilitate the presentation of literature related directly to the targeted population of this DNP project.

2.2 Studies Investigating Alcohol-Associated Problems in College Students in Fraternities

Greek students have provided many reasons for abusing alcohol. These reasons include peer pressure (Mccabe et al., 2005), socialization of members who are put in situations where they are encouraged to abuse alcohol (Capone, Wood, Borsari, & Laird, 2007), and lawless atmospheres in Greek houses (Borsari et al., 2009). In general, it has been found that fraternity members are allowed to drink large quantities of alcohol without supervision or regulation (Harford, Wechsler & Seibring, 2002).

Harfort et al. (2002) studied the settings in which college students were the most likely to drink heavily. In this cohort study of college students aged 18 to 23 years old

who reported alcohol use in the last month, N=12,830 students responded to questions about their drinking habits for the previous 30 days. Although a lower number of students attended fraternity parties compared to off-campus parties, a significantly higher percentage of the students who attended the fraternity parties (84.5%) reported drinking compared to those that attended off-campus parties (75.2%), p<0.01. Findings also showed that fraternity parties had the highest proportion of heavy drinking (49%), followed by off-campus parties (46%) (Hartford et al., 2002).

Mccabe et al. (2005) performed a national longitudinal study in which high school students were studied at baseline in their senior year, and then for the next two years as they matriculated to college. It was found that as students progressed through college, those that joined fraternities and sororities had higher levels of episodic alcohol use when compared to those students that did not join a fraternity or sorority (p <0.001). Further, while alcohol use went up in college, this study found that alcohol abuse among these students was already present while they were high school students. The authors concluded that there are selection effects and socialization effects of alcohol abuse in fraternities and sororities. Selection effects were identified as "the influence of individual characteristics in steering an individual to certain experiences" (Mccabe et al., 2005, pg 513) and socialization effects were identified as "the influence of experiences, organizations or environments on the individual" (Mccabe et al., 2005, pg. 513). There is a need to better understand how and why college students drink to excess and what effect their affiliation with Greek life has on these activities.

In a second longitudinal study, Capone et al. (2007) sought to identify what influenced students to binge drink and abuse alcohol during their first two years of

college. Findings suggested that the male students who affiliate with Greek organizations have a higher risk for alcohol abuse and they are at a higher risk before they even enter college (p <0.05). Researchers concluded that this group of students would benefit from targeted alcohol interventions and that these interventions should take place before or during the pledging process (Capone et al., 2007).

2.3 Studies Investigating Interventions Related to Alcohol Awareness in College Students in Fraternities

As a result of evidence showing alcohol problems in Greek students, research to investigate interventions with this population have been conducted. A recent systematic review of clinical interventions/treatments revealed several studies focused on this population (Scott-Sheldon, Carey, Knight & Carey, 2016). Overall, the efficacy of interventions aimed at alcohol abuse on college campus among fraternity members were presented and the review concluded that although interventions did not reduce alcohol consumption and related problems relative to controls, participants did reduce the quantity of alcohol consumed and frequency of drinking days from pre to post-test (Scott-Sheldon et al., 2016).

Individual studies show interventions aimed at and delivered to heavy drinkers can yield significant reductions in alcohol consumption (Henson, Pearson & Carey, 2015), and using alternative interventions such as goal setting and moderation strategies can be effective at reducing alcohol consumption (Larimen & Cronce, 2007). Additionally, Caudill et al. (2006) studied high risk drinkers in fraternities and found that interventions decreased their behaviors, even if only briefly. Education has also been shown to improve beliefs and other similar variables. Brown-Rice, Furr and Hardy (2015) studied perceptions of alcohol among members of fraternities and found that of students

who attended an alcohol counseling class, 61% to 74.2% of respondents reported a change in their perception of high-risk drinking. This varied depending on which session was attended. Similarly, Fried and Dunn (2012) delivered an alcohol literacy curriculum to fraternity men at a large state university and found that after delivery of the intervention, alcohol expectancy processes were successfully modified. Two chapters (n=148) received the expectancy challenge alcohol literacy curriculum (ECALC) and two chapters (n=102) received a presentation about alcohol in the media and no curriculum about alcohol expectancy. The results showed that ECALC intervention successfully modified alcohol expectancy process and reduced subsequent alcohol use among heavy drinkers (p<0.001) (Fried & Dunn, 2012).

Larimer and Cronce (2007) also conducted a meta-analysis of the literature to identify the best type of information interventions for college students dealing with excessive alcohol intake. Studies that were performed from 1999-2006 were reviewed. Types of interventions used in the studies reviewed included: information/knowledge programs, values clarification programs, normative re-education programs, cognitive/behavior skills based programs, expectancy challenge interventions, and brief motivation interventions. After reviewing the literature, they found no evidence that showed information approaches alone were the best type of intervention. Rather, they found that skills-based interventions and motivational interventions with personalized feedback were supported as positive interventions. Normative re-education interventions showed mixed success although it is noted that normative education fared better when personalized feedback was used (Larimer & Cronce, 2007).

Henson et al. (2015) performed three randomized control trials to yield data about how students responded to three different types of alcohol intervention activities. A group of college students (N=1040) were exposed to one of three interventions: an in person intervention, an in-lab computerized intervention, or an online intervention. Participants were assessed at baseline, one month, six months and finally at 12 months post-intervention. It was discovered that students drank less after the interventions but after a 12-month period, intervention decay was present and students return to their baseline drinking behaviors (Henson et al., 2015). Similarly, Caudill et al. (2006) performed a randomized control study to evaluate if alcohol interventions would have an effect on high-risk drinkers in fraternities. They intervened in 98 out of 99 chapters of a national fraternity and provided three different levels of education. One third of the chapters received the three-hour base line training, one third of the chapters received the three-hour base line training with two "booster" intervention sessions at five and 11 months post-baseline, and the final third of the groups received standard assessment only. The study found that there was a decrease in behaviors of high-risk students' drinking (p <0.05) but the effect deteriorated at 12 and 18 months after the intervention (Caudill et al., 2006).

Brown-Rice et al. (2015) studied Greek members in a mid-sized rural university to see if their perceptions about alcohol changed after a one-hour education session. A total of 236 students responded to the survey after attending one of two alcohol education programs (one focused on straight talk about drinking and the other focused on alcohol and sex) and men that received the first program responded lower to the alcohol use

questionnaire after the intervention (p<.000), demonstrating that even brief interventions

can have a positive effect (Brown-Rice et al., 2015).

Fried and Dunn (2012) performed a study in which they attempted to modify

alcohol expectancy. That is, change the perception of alcohol use and enhance the belief

that the rewards of drinking do not outweigh the consequences. Being able to change this

expectancy has been shown to have a positive impact on decreasing heavy drinking.

Researchers studied participants from two fraternity chapters (N=250) and one group was

given a presentation about alcohol and heavy drinkers, their perception in society and in

the media, and scientific information of alcohol's negative effects on the body. The

second group was given only a media literacy presentation depicting personal appearance

products. A post-test was used to evaluate the effect of both interventions. Consistent

with the researchers' hypothesis, the fraternity men who received the educational

intervention had their alcohol expectancy processes successfully modified (p<0.01)

(Fried & Dunn, 2012).

2.4 Theoretical Framework

Kurt Lewin's Change Theory is a pillar of modern planning and change. The

theory's three steps consist of: unfreezing, changing and refreezing (Lewin, 1951). The

key underlying principle is to complete the difficult task of unfreezing or unlearning

without damaging one's self worth or ego (Schein, 1996). This is a critical element when

considering the target audience of this project. Educating Greek men on the ability to

change the things that they have learned without damaging who they think that they are

or where they belong in their social group presents a challenge. Using Lewin's theory as

a guide is important to help enrich the experience of delivering the educational

intervention to the student participants while still considering their personal development. Of special consideration to this project is the act of unfreezing. It is not be possible to change beliefs toward alcohol without unfreezing what the students' already perceive as the norm. During the unfreezing change, educational interventions can be used to target beliefs Greek men currently have about alcohol and then attempt to change these beliefs.

CHAPTER 3: METHODOLOGY

3.1 Project Design

This DNP scholarly project used a quasi-experimental design with immediate pre and post-test measurements, as well as an eight week follow up measurement to determine the effect of an educational intervention on fraternity men's beliefs about alcohol.

3.2 Participants

Convenience sampling was used to obtain a sample of fraternity men enrolled at UNCC. The sample size was 40 student participants. Inclusion criteria were: male college students who are members of the designated UNCC fraternity selected for project participation, age 18 years or above, and enrolled at UNCC as undergraduate students (from freshman to seniors). Male college students who are not members of the selected fraternity were excluded, as were any potential participants under the age of 18 years. Participant recruitment occurred with the assistance of the selected fraternity chapter's executive board and the Assistant Director of Fraternity and Sorority Life at UNCC.

3.3 Setting

The setting for this DNP Scholarly project was the UNCC campus in Charlotte, NC. One fraternity on the campus of UNCC was selected to participate in this project. The Assistant Director for Fraternity and Sorority Life at UNCC granted approval for access to these students and provided assistance in selecting one fraternity to participate. The educational intervention occurred at the fraternity's chapter meeting on October 14, 2018 on the UNCC campus.

3.4 Tools and Measures

Participant's beliefs about alcohol were measured immediately prior to and following the educational intervention, and 8 weeks after the educational intervention using the College Life Alcohol Salience Scale (CLASS). The CLASS scale is a 15-item survey (see Appendix A) that measures a student's beliefs about alcohol and what role the student believes that alcohol should play in their college experience (Osberg et al., 2010). It was specifically created to measure alcohol beliefs among college students and has been used in research studies examining college student samples (Bravo et al., 2017, Osberg, Insana, Eggert & Billingsley, 2011,). The CLASS uses a 5-point Likert scale with response options ranging from 1= strongly disagree to 5= strongly agree. To score this scale, responses to each of the 15 items are summed after 2 of the items (#3 and 8) are reversed. Therefore, total CLASS scores can range from 15 to 75, with higher scores indicating a strong agreement with alcohol's importance and place in college culture. Higher scores have a higher correlation with negative consequences related to alcohol. In the original study, Cronbach's alpha reliability of the tool was .90 and .94 in the two study samples (Osberg et al., 2010). Permission to use the scale unedited was obtained from Dr. Timothy Osberg (see Appendix B).

The CLASS scale was administered the first two times via pen and paper survey before the educational material was delivered (pretest) and again immediately after the educational material had been delivered (posttest). Eight weeks after the posttest, the DNP student investigator returned to a fraternity meeting on December 2, 2018 and delivered the CLASS again via pen and paper to the student participants. The student participants created a unique four digit PIN code and affixed the code to the top of the

CLASS document before completing it each time. This allowed the DNP student investigator to match results from each of the time points.

In addition, student participants were asked to provide feedback regarding their satisfaction with the educational intervention during the posttest immediately after the educational intervention. Assessing satisfaction is important for future efforts to replicate this project on the UNCC campus with other fraternity chapters. Satisfaction was assessed using a 6-item tool created by the DNP student investigator (see Appendix C). Three of the items on this Satisfaction Survey used a 5-point Likert scale with response options ranging from 1= not at all satisfied to 5= very satisfied. The items measured: 1) overall satisfaction with the education, 2) satisfaction with the education content, and 3) satisfaction with the presenter delivery of the content. Next, student participants were asked if they would recommend the educational class to other college fraternity students, with response options yes, no, and maybe. Finally, 2 qualitative items were provided and asked student participants to: "Please share any suggestions you have for improving this education class" and "Do you have anything else that you would like to share about the education class?" The Satisfaction Survey was administered via pen and paper survey delivery.

3.5 Intervention and Data Collection

The DNP student investigator implemented the educational intervention. The intervention consisted of a presentation that was developed by the DNP student investigator. It included facts and statistics on alcohol, as well as case studies to apply the content. In addition, as beliefs were measured and the literature review demonstrated that motivational interventions are important to include along with the provision of

information (Larimer & Cronce, 2007), it was important to also include real stories about fraternity men that have made poor decisions with alcohol that led to negative outcomes in their lives. This was added to the curriculum to augment learning and provide the opportunity for participant discussion and reflection about the dangers of alcohol use. The length of the educational intervention was 60 minutes. Participants attended the educational intervention as a group and it was delivered to them in person by the DNP student investigator.

On the day of the educational intervention, the DNP student investigator first explained the project and informed consent and student participants were required to provide their informed consent if they chose to participate. Next, participants completed the pre-test consisting of the CLASS. Then, the educational intervention was delivered by the DNP student investigator and took 60 minutes to complete. After the educational intervention, the student participants completed the posttest CLASS and the Satisfaction Survey. Contact information for the Student Health Center on the UNCC campus was shared with the students in the event that any of the participants felt that they needed additional counseling after the intervention was complete. Finally, the DNP student investigator returned to the fraternity chapter meeting on December 2nd to deliver the 8-week follow up CLASS.

3.6 Ethical Considerations

To protect the confidentiality of student participants, no identifying information or demographic information was collected as part of this DNP scholarly project. The results of the CLASS and Satisfaction Survey were reported in aggregate form and individual participant results were not reported. Prior to implementation of the

educational intervention and data collection, institutional review board approval was
obtained from UNCC (see Appendix D).

Participation in this project was voluntary. Potential participants were informed of
the project purpose, procedures and any anticipated risks prior to providing informed
consent. The DNP student investigator reviewed the informed consent with potential
participants and answered any questions prior to beginning the pretest data collection.
The signed informed consents were not stored with any collected data to help protect
confidentiality. After data collection was complete, data was entered into SPSS and the
paper surveys were stored in a locked cabinet in the DNP student investigator's UNCC
office, where they will remain for a period of three years and then destroyed.

3.7 Data Analysis

All data was analyzed using SPSS. Descriptive statistics (mean, standard
deviation) were used to describe overall results on the CLASS scale at the three time
points. To detect significant changes on the CLASS, paired t-tests were conducted for
overall CLASS scores, with $p < .05$ indicating statistical significance. For the Satisfaction
Survey, the quantitative items were evaluated using descriptive statistics and the
qualitative items were assessed for themes.

CHAPTER 4: RESULTS

4.1 CLASS Results

The educational intervention was delivered on October 14th, 2018. There were 40 fraternity members at the session and all were male students between the ages of 18-21 years. All fraternity members who were present volunteered to participate in this project (100% participation rate) and provided their informed consent. Demographic information was not collected to help ensure confidentiality for students.

The CLASS scale was administered immediately before the educational session (pretest) and immediately after the education session (posttest). Participant responses to each of the 15 items were summed after 2 of the CLASS items were reversed per tool scoring directions. A decrease in the total summed CLASS score demonstrates that the educational session was effective at improving beliefs about alcohol. The mean total CLASS score on the pretest was 42.00 and the mean total CLASS score on the posttest was 38.00. This 4.00 point improvement was statistically significant ($p<0.001$). Table 1 demonstrates the change in beliefs about alcohol related to college life from immediately before and after the educational session.

Table 1. Mean total CLASS scores from pre-test to post-test.

Mean Total CLASS Score Pretest	Mean Total CLASS Score Posttest	P- Value
42.00	38.00	<0.001

An 8-week follow-up visit was conducted with the fraternity on

December 2nd, 2018. All 40 student participants from the initial meeting were present

and they were administered the CLASS scale again to see if their beliefs changed in the 8

weeks following the educational intervention. There was a 100% participation rate on the

8-week follow up survey. The mean total CLASS score from the 8-week follow up

survey was 41.67. This was a 3.67 increase from the posttest score immediately after the

educational session (38.00) indicating that students put more importance of alcohol's

place in college culture then they did immediately after they received the educational

intervention. This change was found to be statistically significant ($p<0.001$). Table 2

shows the change in CLASS scores from the post-test to the 8-week follow up session.

Table 2. Mean total CLASS scores from post-test to 8-week follow up.

Mean Total CLASS Score Posttest	Mean Total CLASS Score Eight-week follow up	P- Value
38.00	41.67	<0.001

In comparing pretest results to the 8-week follow up results, the mean total

CLASS score went from 42.00 to 41.67 representing a minimal improvement in

participants' beliefs and this change was not statistically significant ($p=0.754$). Table 3

shows the change in CLASS scores from the pre-test to the 8-week follow up session.

Figure 1 shows CLASS score results from all three data collection timepoints (pretest,

immediate posttest, and 8-week follow up survey).

Table 3. Mean total CLASS scores from pre-test to 8-week follow up.

Mean Total CLASS Score Pretest	Mean Total CLASS Score Eight-week follow up	P- Value
42.00	41.67	0.754

Pretest

Mean = 42.00

Posttest

Mean = 38.00

8-Week Follow-Up

Mean = 41.67

-4.00, p<.001
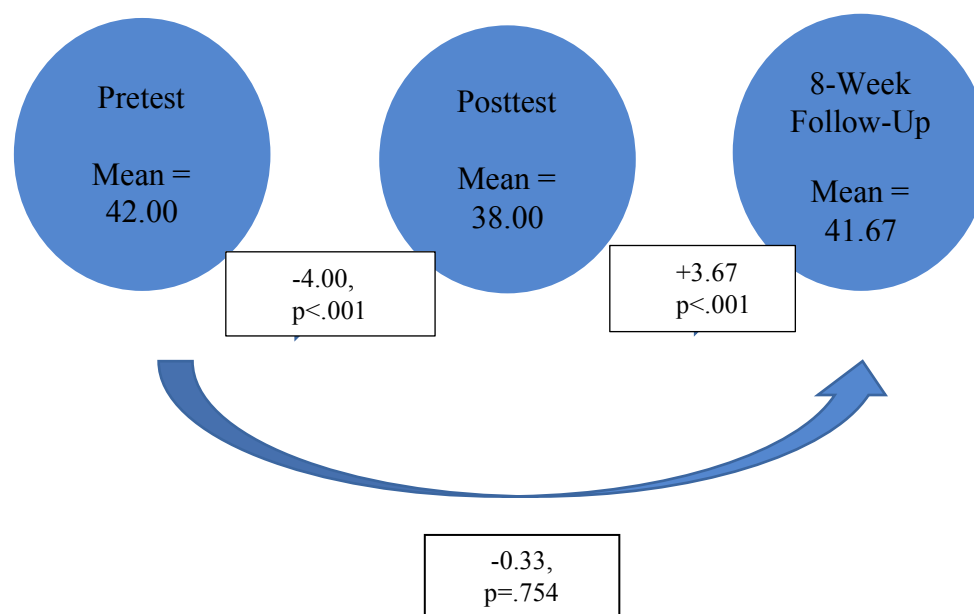
+3.67 p<.001

-0.33, p=.754

Figure 1. CLASS results from three data collection time points.

4.2 Satisfaction Results

Immediately after the educational session was delivered in October, a satisfaction survey was administered to the student participants. There were three 5-point Likert scale questions asked. The first question was, "What was your **overall** satisfaction with the education presented?" The second question was, "What was your satisfaction with the educational **content** presented?" The third question was, "What was your overall satisfaction with the **presenter** that delivered the education?" The higher the score for

these items, the more satisfied the participant was. Mean scores indicated student

participants were satisfied with the presentation overall (mean 4.57), with the content

(mean 4.40), and with the presenter (mean 4.85). Table 4 illustrates the results of the

three satisfaction questions.

Table 4. Mean satisfaction survey results after educational session.

	N	Minimum	Maximum	Mean	Std. Deviation
Overall	40	3	5	4.57	.594
Content	40	2	5	4.40	.810
Presenter	40	3	5	4.85	.427

The next item on the satisfaction survey asked participants to indicate if they

would recommend the educational class to other college fraternity students. Participants

could select yes, no, or maybe. Of the 40 student participants, 35 responded to this item.

Five student participants did not answer the question. All 35 of the respondents indicated

that they would recommend the session to other college fraternity men by selecting

response option "yes".

Finally, the satisfaction survey concluded with 2 qualitative items: "Please share

any suggestions you have for improving this education class" and "Do you have anything

else that you would like to share about the education class?" Out of 40 student

participants, 19 provided comments. Many of the comments were made to provide

positive feedback on the education. Examples of these comments included: "Very

informative," "Great presentation," And "Perfect presentation!" One participant

expressed being grateful for the education: "Amazing presenter! Thanks for keeping us informed" and another participant stated "It's nice to know we have another resource on campus." Lastly, one student participant wrote about the motivational impact of the intervention by stating: "Very motivational speaker. Eye opening and an awesome presentation."

Another theme noted in participant comments was that there was a desire to know more statistics and facts about alcohol. According to one student participant it would be helpful to "Talk more about how alcohol can effect your organs long term. That's never talked about to fraternities." Another participant suggested to "Show more statistics and possible consequences of alcohol abuse." Finally, a student participant felt it would be beneficial for more information on resources to help persons with signs of an alcohol problem by stating: "Maybe go over more signs of alcohol abuse and what we can do to help that person".

CHAPTER 5: DISCUSSION

5.1 Interpretation of Results

The findings of this project reveal that the targeted educational intervention had a short-term positive impact on the alcohol beliefs of student participants. There was a mean decrease of 4.00 points on the CLASS scale from pretest to immediate posttest which reached statistical significance (p<0.001), demonstrating that the educational intervention significantly decreased their beliefs that alcohol plays a significant role in the college students' life. As anticipated, after eight weeks, the follow-up survey showed an increase in mean CLASS score to 41.67. This result is close to the pretest mean score of 42.00, which indicates that the educational intervention only resulted in a minor and non-significant sustained improvement in alcohol beliefs (p=0.754).

Findings also revealed that student participants were very satisfied with the educational intervention. The 100% participation rate on the pretest, posttest, and 8 week follow up survey indicate that education on alcohol may be received well by fraternity members. Those fraternity members who participated in this project reported a high level of satisfaction for the overall presentation, content, and presenter (mean scores of 4.40 to 4.85 on 5-point Likert scale). Qualitative comments also demonstrated satisfaction with the educational intervention indicating that it may be well-received by other fraternities.

Although behavioral drinking variables were not measured as part of this project, previous studies have linked CLASS scores to future drinking behaviors. According to Osberg et al. (2010), "college alcohol belief scores were predictive of drinking and its consequences one month late, even when baseline levels of drinking or consequences were controlled." (p.6). This suggests that the educational intervention could have

improved student participants' drinking behaviors immediately after the educational intervention, but that effective long-term change was unlikely.

5.2 Recommendations for Practice

This project used a face-to-face educational intervention for fraternity men that aimed to improve their beliefs about alcohol and how it fits in to their college lives. The intervention was tailored to address the experiences of fraternity men as participants and the Satisfaction Survey indicated the participants were satisfied with receiving education tailored to them specifically. However, fraternity men are not the only group on college campuses that use alcohol regularly. Specifically, sororities and collegiate teams also experience negative outcomes related to alcohol abuse. Currently, the Center for Wellness Promotion at UNCC offers educational sessions related to alcohol, tobacco and/or drugs to such student groups, but this is done so by request only. At the present time, each student organization that is formally recognized by UNCC is required to host two risk reduction programs each year. The results of this project indicate that bi-annual education is likely not enough to result in long-term changes in beliefs (or behaviors). Therefore, a major recommendation stemming from this project is to ensure all at-risk student groups receive tailored education on alcohol and that this education is offered frequently throughout the year.

In order to promote sustained improvements in alcohol beliefs, universities should consider requiring organizations with at-risk students to have mandatory follow up educational sessions on alcohol. This project's return to baseline CLASS scores at the 8-week follow up survey demonstrates the importance of follow up.

Follow up education could be provided in many ways. Use of a web-based intervention tailored specifically to the organization that received the initial education via face-to-face delivery may be a feasible option. Bingham et al. (2010) found that after four web-based educational sessions where 616 female sorority students received tailored feedback to individual drinking patterns, there were high rates of behavioral change toward alcohol, fewer reasons to drink, and more strategies to avoid at-risk drinking than control groups. Participants in this study were found to be especially receptive to web-based education, therefore, it may be helpful to offer sororities (and fraternities) ongoing web-based follow up after face-to-face educational interventions on alcohol. Sororities at UNCC specifically would benefit from alcohol education. In May of 2018, a 20 year old sorority women and student at UNCC died after falling from a moving party bus. Authorities ruled that alcohol played a factor in the young women's death.

Athletes on college campuses are another group of students that are in need of alcohol education. In a study of 1,303 college athletes, 46% reported drinking more than five alcoholic drinks per week (Druckman, Gilli, Klar, & Robison, 2015). This alcohol consumption profile fits the definition of binge drinking (Caudill et al., 2006). At UNCC, athletes are offered the same benefits as other student groups and thus have access to programs through the UNCC Center for Wellness Promotion. Although drinking behaviors of UNCC athletes is not known, a former UNCC quarterback was recently charged with sexual assault after a night out drinking copious amount of alcohol and this indicates there may be a need for alcohol education among this student group. A study by Wyrick, Milroy, Reifsteck, Day and Kelley (2016) found that athletes that received web-based alcohol prevention sessions were receptive and there was a positive effect on

perceived social norms, expectancies, and intentions relating to alcohol. The sessions were delivered via an innovative web based technology called "myPlaybook". There was no long-term follow up to see if the educational sessions maintained their desired effect and thus more research is needed to identify the best educational strategies for this student group who is at risk for alcohol associated problems.

5.3 Recommendation for Future Projects and Studies

College students are at risk for alcohol abuse (SAMHSA, 2014). Group affiliations make it easy to capture a large, like-minded audience and deliver education about alcohol in a manner that can enact change. Studies with a focus on promoting long-term change are needed. Continued investigation of an online delivery model similar to "myPlaybook" is also recommended to identify feasible methods to help ensure that members of Greek life organizations or collegiate athletes can receive ongoing alcohol educational interventions. Abrams, Kolligian, Mills and Dejong (2011) found that "students who completed [an online alcohol program] were less likely to present for an alcohol event than were students who partially completed it or failed to take the course." Thus, completion of online alcohol education is a promising intervention in need of further research. Further, this particular study involved the university strongly encouraging students to complete the online course, but did not require it. Studying the effects of required versus suggested educational sessions for at-risk student groups would be beneficial.

5.4 Limitations

A limitation of this project was that no demographic information was collected from the male fraternity participants. Because the DNP student

investigator was also a lecturer at the university, no demographic data was collected to

minimize the risk of revealing the identity of those that completed

the surveys to a potential future teacher. However, it was known through the inclusion

criteria on the informed consent that all participants were male undergraduate students

aged 18-21 who were fraternity members. Another limitation was that only one fraternity

from one university campus participated, limiting generalizability. Finally, alcohol use

variables were not measured

to evaluate correlations between student participants' beliefs about alcohol and their

drinking behaviors and although prior research using the CLASS found beliefs and

behaviors were correlated, this requires further examination.

5.5 Summary

Fraternity men are at risk for negative outcomes related to alcohol abuse. Each

year, fraternity men die on college campuses across the country and alcohol is often

found to be involved in the circumstances. This project found that an educational

intervention delivered face-to-face can effectively improve beliefs about alcohol's place

in college culture. However, beliefs were found to have reverted to pre-intervention

levels on the 8-week follow up survey. Continuing educational interventions are needed

to help promote sustained improvements in fraternity students' alcohol beliefs. The

ability to regularly deliver content to college students via a means that is available and

accessible is essential to promote the sustained change in beliefs that is important to bring

about changes in behaviors related to drinking alcohol.

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APPENDIX A: COLLEGE LIFE ALCOHOL SALIENCE SCALE

College Life Alcohol Salience Scale (CLASS)

INSTRUCTIONS: Incoming or continuing college students may hold a number of beliefs or expectations about what college life should be like. Please use the rating scale given below to indicate your degree of agreement or disagreement with each statement. Using the pencil
provided, ***blacken in the bubble*** corresponding to your answer for each item.

1 = Strongly Disagree 2 = Disagree

3 = Neither agree nor disagree

4 = Agree

5 = Strongly Agree

	SD	D	N	A	SA
1. Parties with alcohol are an integral part of college life.	O	O	O	O	O
2. To become drunk is a college rite of passage.	O	O	O	O	O
3. I would prefer it if my college was not considered a party school.	O	O	O	O	O
4. The reward at the end of a hard week of studying should be a weekend of heavy drinking.	O	O	O	O	O
5. I think that the students who do not go out to parties or bars are not enjoying their college experience.	O	O	O	O	O
6. Missing class due to a hangover is part of being a true college student.	O	O	O	O	O
7. A college party is not a true college party without alcohol.	O	O	O	O	O
8. Alcohol is not an important aspect of college life.	O	O	O	O	O
9. Attending parties with alcohol is the easiest way to make friends.	O	O	O	O	O
10. Drinking alcohol is a social event in which every college student partakes.	O	O	O	O	O
11. College is a time for experimentation with alcohol.	O	O	O	O	O
12. A good college party should include drinking games such as beer pong, flip cup, power hour, etc.	O	O	O	O	O
13. Blacking out or forgetting part or all of the previous night's events is to be expected in college.	O	O	O	O	O
14. It is okay to drink in college, even if you are under age.	O	O	O	O	O
15. The chance to drink and party in college is just as important as the academic experience.	O	O	O	O	O

APPENDIX B: PERMISSION TO USE CLASS SCALE

Cory Sheeler <csheele1@uncc.edu>

Permission to use CLASS for DNP project

Timothy Osberg <tosberg@niagara.edu>   Tue, Mar 13, 2018 at 11:28 AM
To: Cory Sheeler <csheele1@uncc.edu>

Hi Cory,

Of course you may use the CLASS. Thanks for your interest. I have attached the PsychTests entry for the CLASS and several articles I published using it.

Please keep me informed of your findings.

Good luck!

Tim

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APPENDIX C: SATISFACTION SURVEY

For questions 1-4, please circle the option to indicate your level of satisfaction. For

questions 5-6, please write in any comments you wish to share.

1. What was your **_overall_** satisfaction with the education presented?

Not at all satisfied	Somewhat satisfied	Mostly satisfied	Satisfied	Very satisfied
1	2	3	4	5

2. What was your satisfaction with the educational **_content_** presented?

Not at all satisfied	Somewhat satisfied	Mostly satisfied	Satisfied	Very satisfied
1	2	3	4	5

3. What was your overall satisfaction with the **_presenter_** that delivered the

    education?

Not at all satisfied	Somewhat satisfied	Mostly satisfied	Satisfied	Very satisfied
1	2	3	4	5

4. Would you recommend the educational class to other college fraternity students?

    Yes   No   Maybe

5. Please share any suggestions that you have for improving this class:

6. Do you have anything else that you would like to share about the education class?

APPENDIX D: IRB APPROVAL

To: Cory Sheeler
School of Nursing

From: Office of Research Compliance

Date: 6/27/2018
RE: Notice of Approval of Exemption with No End Date
Exemption Category: 2.Survey, interview, public observation
Study #: 18-0253

Study Title: Beliefs About Alcohol Among College Students in Fraternities: Effect of a Targeted Educational Intervention

This submission has been reviewed by the Office of Research Compliance and was determined to meet the Exempt category cited above under 45 CFR 46.101(b).   This determination has no expiration or end date and is not subject to an annual continuing review. **However, you are required to obtain IRB approval for all changes to any aspect of this study before they can be implemented.**

The Investigator Responsibilities listed below applies to this study only. Carefully review the Investigator Responsibilities.

Study Description:

Studies have demonstrated that targeted alcohol education programs can have a positive effect on reducing negative outcomes in college students and Greek members (Baer et al. 1992; Barnett et al. 2008; Larimer et al. 2001). Therefore, the purpose of this DNP scholarly project is to (1) provide an educational intervention about the dangers of alcohol abuse to fraternity members and (2) evaluate the effect of the educational intervention on fraternity members' beliefs about alcohol. Convenience sampling will be used to obtain a sample of fraternity men enrolled at UNCC. The target sample size will be 50 student participants. Inclusion criteria will be: male college students who are members of the selected fraternity and age 18 years or above who are enrolled at UNCC as undergraduate students (from freshman to seniors). Participant's beliefs about alcohol will be measured prior to, immediately following the educational intervention, and 1 month after the educational intervention using the CLASS scale. The CLASS scale is a 15-item survey that measures a student's beliefs about alcohol and what role the student believes that alcohol should play in their college experience (Osberg et al., 2010).
Your approved consent forms (if applicable) and other documents are available online at http://uncc.myresearchonline.org/irb/index.cfm?event=home.dashboard.irbStudyManagement&irb_id=18-0253.

Investigator's Responsibilities:
The above-cited determination has no expiration or end date and is not subject to annual continuing review.