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Evaluation Of An Expectancy Challenge Presentation In Reducing High-risk Alcohol Use Among Greek Affiliated College Students

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EVALUATION OF AN EXPECTANCY CHALLENGE PRESENTATION IN REDUCING HIGH-RISK ALCOHOL USE AMONG GREEK AFFILIATED COLLEGE STUDENTS

by

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ABSTRACT

Alcohol consumption and on college campuses has long been a significant problem. The severity of the situation and lack of effective alcohol programming on college campuses warranted the National Institute on Alcohol Abuse and Alcoholism to commission a Task Force on College Drinking in 2002, which has been vital in revealing drinking patterns and negative consequences which are specific to the college environment. The Task Force proposed three strategies that were empirically validated for prevention and intervention in the college setting. Of the three recommendations, implementing cognitive behavioral skills training and offering motivational enhancement interventions, while proven effective are costly and time consuming to implement. The final strategy recommended, challenging alcohol expectancies, has been validated for use in a group setting making it a more viable option for reaching larger audiences. Within the college environment there are certain factors that have shown to be important in influencing college students' drinking behaviors, attitudes toward drinking, and alcohol related negative consequences. Specifically, membership in a fraternity or sorority has revealed a unique predictor of risky drinking behavior and an increased risk of suffering from negative consequences related to alcohol. The purpose of the present study was to implement an expectancy-based presentation in Greek chapter houses to alter expectancies and decrease risky drinking behavior. Alcohol expectancies were measured before and immediately after the presentation. Alcohol consumption was also assessed in a self-report measure of drinking for the 30 days prior to the presentation as well as 30 days following it. Analyses revealed significant reductions in positive alcohol expectancies and alcohol consumption on measures of quantity (average drinks per sitting), frequency (average drinking days per week), and heavy episodic

drinking (average weekly peak blood alcohol content). Therefore, the structure and effectiveness of the current intervention program proves extremely useful and practical for widespread implementation in Greek chapter houses across all college campuses.

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INTRODUCTION

Research focused on alcohol use among young adults has repeatedly found that college students drink more than their same age peers who do not attend college (Dawson, Grant, Stinson, & Chou, 2004; Timberlake et al., 2007). In 2008, national survey results released by the NIAAA indicate that on average four out of five college students reported use of alcohol within the past year and two in every five college students reported one or more episodes of binge drinking during a 2-week period preceding the survey. Although moderate alcohol use is rarely thought to be harmful, as of the year 2000, alcohol related deaths in the United States was rated the third most frequent preventable type of death after tobacco use and poor diet (Mokdad, Marks, Stroup, & Gerberding, 2004). Among college students alone approximately 1,700 college students died in the past year from alcohol related causes, a 21% rise from 1,400 deaths in 2002 (Hingson, Heeren, Winter, & Wechsler, 2005).

Although alcohol contributes to a wide variety of fatalities, driving while under the influence accounts for the largest proportion of those deaths, particularly among young adults. According to a recent national Core Survey, approximately 39% of college drinkers reported driving while under the influence at least once within the past year (Presley et al., 1996). In 2005, the number of college students who had driven while under the influence was approximated to be 2.8 million, which is a significant increase from 2.1 million in 2002 (Hingson et al., 2005). According to the National Census Bureau in 2005-2006 there were 20.5 million young adults enrolled in college in the United States, which means that almost 14% of all college students reported driving while under the influence at least once within the past year. Furthermore, the National Highway Traffic Safety Administration revealed that car accidents are

the leading cause of death of adolescents and young adults; and 21% of all drivers between the ages of 15 and 20 that were killed in car accidents had a blood alcohol concentration of 0.10 or higher (NHTSA, 1998). In a national survey of over 10,000 college students, across 39 states, 29% of students drove after consuming any amount of alcohol and 10.8% drove after consuming 5 or more drinks during the night. Of the students who reported driving after consuming any amount of alcohol 47.3% were members of the Greek system and of those who reported driving after consuming 5 or more drinks 19.1% were members of the Greek system (Weschler, Lee, Nelson, & Lee, 2003). Not only do members of the Greek system account for almost half of all the college students who reported driving while under the influence, the Greek system only makes up approximately 12% of the entire student body (Harvard College Alcohol Study, 2001). Therefore, only 12% of the 20 million college students in the United States account for almost half of college students who reported driving after consuming any amount of alcohol.

While a death caused by drinking is the ultimate consequence of students' risky behaviors, there are many other impairing negative consequences that result as well. For instance, each year 599,000 college students suffer from injuries, 696,000 college students are assaulted, and 97,000 are victims of sexual assault or rape, all resulting from alcohol related situations (Hingson et al., 2005). Not only is death and injury related to alcohol a substantial problem, but also often overlooked, alcohol is a leading contributor to academic problems in college. Approximately 25% of college students will receive lower grades, miss class, or fall behind on their work as a result of their drinking (Wechsler et al., 2002). Furthermore, it is estimated that almost one-third of all freshman student will not enroll in their sophomore year because of their heavy drinking during their first year (Upcraft, 2000).

The severity of the situation and lack of effective alcohol programming on college campuses warranted the NIAAA to commission a Task Force on College Drinking in 2002, which has been vital in revealing drinking patterns and negative consequences which are specific to the college environment. The focus of the Task Force was to identify effective alcohol prevention and intervention strategies specific to the college population as well as strategies that still need further research and to then advise university administrators (NIAAA, 2002). The Task Force's recommendations were subsequently divided into Tiers based upon their degree of empirical support and specificity to the college population. Tier 1 identified three strategies that have been empirically supported within the college population. Of the three recommendations, implementing cognitive behavioral skills training and offering motivational enhancement interventions, while proven effective are costly and time consuming to implement. The final strategy recommended within Tier 1, challenging alcohol expectancies, has been validated for use in a group setting making it a more viable option for reaching larger audiences. Tier 2 provided strategies such as increasing drink prices and increased restrictions on alcohol policies that have been proven effective with certain populations but have not been sufficiently researched within the college environment. Finally strategies that have not yet been empirically supported were placed in Tier 3 and those proven ineffective were placed in Tier 4.

Within the college environment there are certain factors that have shown to be more important in influencing college students' drinking behaviors, attitudes toward drinking, and alcohol related consequences. Specifically, membership in a fraternity or sorority has revealed a unique predictor of risky drinking behavior and an increased risk of suffering from negative consequences related to alcohol. Numerous studies have indicated that members of a fraternity or

sorority engage in heavy drinking (five drinks or more in one sitting), significantly more than their non-Greeks peers (Cashin, Presley, & Meilman, 1998; Scott-Sheldon, Carey, & Carey, 2008; Strano, Cuomo, & Venable, 2004; Sher, Bartholow, & Nanda, 2001; Weschler et al., 1996). A study of a national fraternity conducted across 32 states revealed that an alarming number of fraternity members, 97%, classified themselves as drinkers, 83% were considered heavy drinkers, and 86% were binge drinkers (Caudill et al., 2006). A similar national study, conducted over a decade prior, across 179 campuses and 14,756 undergraduates, revealed that 93% of fraternity men and 92% of sorority women engaged in drinking, and an overwhelming 86% of fraternity residents and 71% of fraternity members living outside the house engaged in binge drinking; which is shockingly similar to binge drinking rates among fraternity member 13 years later (Weschler et al., 1996). The above study also indicated that 43% of women residing in a sorority house had 3 or more binge episodes within the past 2 weeks, compared to 15% of non-sorority women (Weschler et al., 1996). Members of the Greek system also experienced more alcohol related consequences such as hangovers, missed school/work, argued with friends, or had done something they later regretted, etc. than their non-Greeks peers (Cashin et al., 1998; Harrington et al., 1997; Weschler et al., 1996). Members of fraternities and sororities, residing in their chapter houses, reported very dangerous behaviors such as drinking and driving or riding with a driver who was under the influence, significantly more often than non-Greeks (Weshcler et al., 1996). Furthermore, a recent analysis of Greek members indicated they were more likely to engage in intercourse while under the influence of alcohol or drugs and acquired more sexual partners in the past 3 months than non-Greeks (Scott-Sheldon et al., 2008). In addition, those residing in a fraternity or sorority house drank on more occasions than students residing in a

residence hall (Larimer, Anderson, Baer, & Marlatt, 2000). Further, men residing in a fraternity house experienced serious alcohol related problems, 83.6% reported blackout, 49.1% had gotten into a physical fight, and 16.4% had been arrested while intoxicated (Larimer et al., 2000).

Furthermore, in a study by Bartholow, Sher, and Krull (2003), the level of Greek involvement ranging from an active member living in the house to a student who was not affiliated, indicated that for men, the more heavily involved the student was in the fraternity the more likely they were to engage in heavy drinking. In addition, the results from the study of Capone, Wood, Bosari, and Laird (2007), indicated that members of both fraternities and sororities and those who attended Greek functions exhibited greater alcohol use than men and women who were not involved with the Greek system. An analysis of the Core Alcohol and Drug Survey data from October 1994 to September 1995 indicated that leaders of fraternities and sororities were consuming alcohol, engaging in risky drinking behaviors, and experiencing negative consequences at alarmingly high levels, and in some cases higher than the general members (Cashin et. al, 1998). Not only are Greeks more likely than non-Greeks to drink on more occasions, in greater quantities, and experience significantly more negative consequences related to alcohol, they are also more likely to engage in other types of negative health behaviors. Specifically with drugs use, 40% of Greeks had used marijuana and 20% had used other drugs (cocaine, amphetamines, ecstasy, and hallucinogens) within the past month (Scott-Sheldon et al., 2008).

Throughout the past few decades, students who identified themselves as belonging to the Greek system have consistently reported greater alcohol use and negative consequences relative to non-Greeks. When comparing the behaviors of Greeks from 1994 to 2000, students did not

differ on number of drinking episodes per week or typical alcohol consumption. Students, however, did significantly differ from 1994 to the year 2000 on the location of their heaviest drinking episode occurred. In 1994, 41.6% of Greek members reported their heaviest drinking episode occurred at a bar while in the year 2000, 34.1% reported it occurred at a fraternity party (Caron, Moskey, & Hovey, 2004). This is alluding to a shift in type of heavy drinking occurring more within chapter houses as opposed to local bars.

Not only are members of the Greek system engaging in binge drinking, drinking more frequently, and experiencing more negative consequences than non-Greeks, the structure of the organization puts the chapter and its individual members at risk for legal liability when alcohol is involved. Elkins, Helms, and Pierson (2003), examined 43 alcohol negligence cases involving a fraternity or sorority beginning in 1970. Of the 43 cases, 16 cases involved wrongful death claims, 7 involved alcohol poisoning or aspiration, and 3 involved sexual assault or battery (Elkins et al., 2003).

Extant research has identified members of the Greek system as high-risk drinkers that experience significantly more negative consequences than their non-Greeks peers. In the face of these apparent negative consequences, however, members of the Greek system persistently perceive less risk associated with their drinking than non-Greeks (Tampke, 1990). Gaining an understanding of the Greek environment and the personality characteristics of those affiliated is central to unlocking the reasons why Greeks drink significantly more than the general college population. Some researchers conclude that the type of individual that joins the Greek system was a heavier drinker in high school as well (Schall, Kemeny, & Maltzman, 1992; Wechsler et al., 1994; Read et al. 2002) which accounts for the heavier drinking in college. Other researchers

have examined the influence of the Greek environment. For example, a national longitudinal study of almost 6,000 college students monitoring their substance use from 1988 to 1997 revealed that while members of the Greek system were more likely to have higher levels of substance use prior to college, heavy drinking increased over time as a function of Greek membership (McCabe et al. 2005). Additionally, Park and colleagues (2008) revealed that disaffiliation from the Greek system was associated with decreases in heavy episodic drinking; further indicating the role of the Greek environment in facilitating risky drinking behavior.

Despite the numerous studies that have identified college students as heavier drinkers than non-college students and Greek students as heavier drinkers than non-Greeks, there are a limited number of effective intervention strategies that have been implemented within the college population. Further, even fewer intervention and prevention programs have been tailored specifically to the high-risk Greek community.

Various types of interventions have been developed aimed at reducing risky drinking behavior in the college population. Examples of the various types of interventions include: educational programming, social norms challenging, motivational interventions, and cognitive-behavioral techniques such as alcohol monitoring and expectancy challenges. Educational or knowledge based programs have repeatedly shown to be ineffective in the college population. Meier (1988) provided students with some form of alcohol information and found no significant effect for reducing drinking when compared to the placebo control group (as cited in Larimer & Cronce, 2002). Furthermore, in a study of students who had received alcohol related violations, there was no significant effect for the education group when compared to the no treatment control (Flynn & Brown, 1991, as cited in Larimer & Cronce, 2002). Even peer-led alcohol

awareness programming did not significantly reduce risky drinking (Schall et al., 1991, as cited in Larimer & Cronce, 2002). Similarly, educational programming specifically tailored to members of fraternities and sororities have failed in affecting risky drinking behaviors and related consequences. “Talking About Alcohol and Drugs Among Greeks” (TAAD) was a program designed to reduce high risk drinking by relaying that alcoholism is a product of the students’ predetermined family risk and the choices that students make about frequency and quantity of alcohol consumption. The TAAD program was evaluated among 15 chapters across 5 campuses and indicated that the program did not significantly reduce risk drinking nor did it have a significant effect on almost all negative consequences (Harrington, Brigham, & Clayton, 1999). It can therefore be deduced that intuitive and educational programming about alcohol and its related risks is not effective in reducing risky drinking or related consequences within the general college population or more specifically within the Greek population.

A similar type of knowledge based intervention known as ‘values clarification’, addresses students’ personal goals and provides information about alcohol in order to make better decisions. Neal and Carey (2004) identified heavy-drinking students and provided them with either normative feedback, values clarification programming, or a report on alcohol awareness. However, at the 3-week follow-up none of the intervention groups had significantly affected students’ drinking behaviors. Furthermore, interventions combining a values clarification treatment, knowledge based program, with information challenging peer norms about drinking did not have a significant effect on drinking behavior (Barnett et al., 1996 as cited in Larimer & Cronce, 2002). Additionally, college administrators across the country have implemented ‘social-norms marketing’ campaigns based on the intervention strategy of challenging students’

misperceptions regarding alcohol use in order to promote more healthy behaviors. The Harvard School of Public Health College Alcohol Study surveyed 120 campuses and over 50,000 college students between 1993 and 2001. Their results indicated the campaign showed no significant effect on campus wide drinking behaviors and even suggests an increase in alcohol use on campuses that had implemented the social norms marketing campaign (Wechsler et al., 2003). Normative feedback, however, has shown promise in reducing drinking when the information is tailored to the individual student. For instance, in 2004, Neighbors, Larimer, and Lewis revealed that personalized feedback regarding self-reported alcohol use even without a face-to-face interview significantly reduced alcohol use and negative consequences when compared to those in the assessment condition. A similar study conducted in 2007, reduced peak BAC and typical drinks per week when personalized feedback was provided (Walters, Vader, & Harris, 2007, as cited in Larimer & Cronce, 2007). Although normative-reeducation programs have shown promise within the general college population, these types of interventions may not have the same clinical utility within the Greek population. Larimer and colleagues (2004) have shown that Greeks can accurately estimate the drinking of their friends and view themselves as distinct from the general college population.

Skills based interventions that include self-monitoring of alcohol use and the incorporation of cognitive behavioral techniques, which challenge a student's beliefs about alcohol, has shown promising results in the college population. For instance, Kivlahan and colleagues (1990) evaluated an Alcohol Skills Training Program which incorporated alcohol moderation techniques and behavioral skills training and showed college students who received the 8-week long program reduced risky drinking and consequences related to use when

compared to the educational group and assessment only control. A group of mandated and voluntary college students significantly reduced heavy drinking and risky behaviors such as driving after drinking after they received an alcohol skills training program which emphasized alcohol moderation and taught coping strategies to combat pressure to drink in different situations (Fromme & Corbin, 2004). Within the Greek community, Garvin and colleagues attempted to reduce alcohol use in fraternities by providing them with 4, 45 minute alcohol skills training classes, training in self-monitoring of alcohol use, an educational class, or a treatment control group. Fraternity members who received the skills training group and those who were taught to self-monitor alcohol use showed greater reductions in alcohol use at a 6-month follow-up than members in the other two conditions. However, a serious limitation of this study was an extremely small sample size of only 60 fraternity members (Garvin et al., 1990 as cited in Turrisi, Mallett, Mastroleo, & Larimer, 2006). More recent college alcohol interventions are not purely cognitive behavioral skills training program, but also incorporate motivational enhancement strategies within the intervention.

Unlike knowledge-based interventions, motivational interventions aimed at reducing problematic drinking by enhancing the student's motivation to change through nonjudgmental presentation of alcohol information and basic alcohol skills training have proven to be very successful at reducing risky drinking and negative consequences. Motivational interviewing is built upon the belief that avoiding confrontational judgments and fostering an open environment using nondirective questioning will allow the student to come about positive behavior change on his/her own accord (Miller & Rollnick, 1991). Bosari and Carey (2005) utilized motivational interviewing techniques with mandated college students and revealed it to be more effective in

reducing peak BAC and negative consequences when compared to an educational alcohol intervention (as cited in Larimer & Cronce, 2007). Many successful programs have been developed utilizing motivational enhancement strategies, such as the Brief Alcohol Screening and Intervention for College Students (BASICS, Dimeff et al., 1999). BASICS is an individually administered brief intervention strategy incorporating personalized feedback on typical drinking patterns, normative re-education, and behavioral techniques to reduce risky drinking. BASICS has repeatedly been found effective in reducing binge drinking, frequency of drinking occasions, and consequences related to alcohol misuse (Baer et al., 2001; Murphy et al., 2001). Brief motivational interventions have also shown promise in reducing drinking rates and negative consequences related to alcohol, with high-risk college students (Marlatt et al., 1998). Marlatt and colleagues identified high-risk high school seniors as those who reported drinking 5-6 drinks on one occasion or experienced at least 3 negative consequences on the RAPI scale on at least 3 occasions within the past 3 years. Students were then randomly assigned to an individualized motivational intervention or a no-treatment control during their first semester of college. In addition to the feedback session students in the intervention groups also monitored their drinking 2-weeks prior to the interview. Although motivational enhancement interventions have proven to be very effective within the college population, and is recommended as one of the Tier 1 strategies in NIAAA's Task Force on College Drinking (NIAAA, 2002), it is a time consuming and costly intervention that has limited research within the Greek population. There have been few studies that have utilized motivational interventions specifically focusing on the Greek system. In Marlatt's study on incoming high-risk first year students, although not specifically designed as an intervention focusing on the Greek system, members of fraternities and sororities

who received the motivational and personalized feedback session reported less alcohol use and negative consequences than members in the control group. The Greeks in the successful intervention condition, however, still reported drinking rates and negative consequences at significantly higher rates than the non-Greeks in the same condition (Marlatt et al. 1998). Additionally, a study conducted by Larimer and colleagues (2001), utilized motivational interviewing techniques to individually administer a 1-hour personalized feedback session to 296 first year fraternity and sorority members. The purpose of the intervention was to promote moderate drinking, challenge perceived norms, discuss biphasic effects of alcohol, challenge alcohol expectancies, and review personal drinking related consequences. At the 1-year follow-up, fraternity members reduced their peak BAC and average drinks per week from 15.4 to 12.2. However, there was no significant change for sorority women and no significant treatment effect for fraternity members in amount of drinks per occasion or frequency of consumption (Larimer et al., 2001). Consequently, the need remains for effective alcohol interventions tailored to Greek members that can be implemented on a wide scale basis.

The final strategy in Tier 1 of NIAAA's Task Force recommendations was challenging alcohol expectancies (NIAAA, 2002). Alcohol expectancies are the way in which one perceives that alcohol will affect them or shape their experience when drinking. The process of learning about alcohol and the beliefs of its effects occur even before alcohol is ever consumed (Brown, 1985). There are many things that shape the individual's alcohol expectancies such as friends, family, the media, and previous drinking experiences (Christiansen, Goldman, & Inn, 1982). The way in which alcohol expectancies influence drinking behavior has therefore been intensely investigated. Rather and colleagues (1992) developed the memory based model of understanding

alcohol expectancies and proposed that an individual's direct and indirect experiences with alcohol are stored in the semantic memory system as "nodes". Indirect experiences with alcohol occur through observations of family members, peers, and the media. Further, the closeness between the nodes in the memory system is determined by the meaning placed on them by the individual. When an alcohol stimulus is presented a "spreading activation" occurs which activates these nodes or expectancies (Rather et al., 1992). Since, an individual's unique experiences shape their memory network and the distance between the nodes; it is understandable that the memory networks vary considerably. College students, in particular, vary greatly on whether they believe alcohol will have a positive or negative effect. Cluster analysis revealed that heavier drinkers associated alcohol consumption with more positive and social effects. This was represented by the distance needed to combine positive social concepts such as happy and funny. Conversely, lighter drinks associated alcohol consumption with more negative and sedating effects such as relaxed and sleepy (Rather & Goldman, 1994). The beliefs held about alcohol or alcohol expectancies thereby become a link to alcohol use and can even differentiate types of drinkers (Dunn & Goldman, 1998; 2000).

Therefore, altering alcohol expectancies will result in a change in drinking behavior. Numerous experimental studies have successfully demonstrated this by reducing alcohol use from intervention strategies know as an "Expectancy Challenge" (Darkes & Goldman, 1993, 1998; Dunn, Lau, & Cruz, 2000; Lau-Barraco & Dunn, 2008). In order to challenge alcohol expectancies Darkes and Goldman (1993) simulated a bar environment and provided heavy drinking male college students with either alcohol or a placebo and monitored their social interactions. The course of the study consisted of two additional "Expectancy Challenges" and

information about alcohol expectancies. Following the 45-minute event participants were asked to identify who in the group had consumed alcohol. The participants' failure to accurately identify which students had consumed alcoholic beverages challenged their beliefs about the physiological effects of alcohol; and in turn had significantly decreased positive expectancies and alcohol consumption at the 2-week follow-up. Darkes and Goldman (1998) replicated and slightly modified the experimental study in 1993 to include two expectancy challenge conditions and an assessment only control condition with 54 heavy drinking male college students. The two expectancy challenge conditions challenged either social/sexual expectancies or arousal expectancies. At the 2-week follow-up participants in both of the expectancy challenge conditions significantly reduced their drinking when compared to the assessment only control, which also showed an increase in consumption. Additionally, in both Darkes and Goldman studies (1993, 1998) participants that were initially the heavier drinkers in the group showed the largest reductions in alcohol consumption, which is revolutionary since most interventions tend to produce large effects for moderate and lighter drinkers and less of an effect on the heavier or high-risk drinkers. While the three-session "Expectancy Challenge" has been effective with male college students it has not shown the same promise with females (Dunn et al., 2000) and is also expensive to implement three separate interventions. In a single session "Expectancy Challenge", modified from Darkes and Goldman (1993, 1998) experimental protocol, Lau-Barraco and Dunn (2008) demonstrated significant reduction in alcohol consumption and positive (social) expectancies in both male and female college students. The necessity of a simulated bar environment in order to deliver the "Expectancy Challenge" intervention is a great limitation in providing widespread implementation on college campuses. Cruz and Dunn (2003) developed an

interactive classroom-based expectancy challenge exercise with elementary school children. The classroom-based strategy attempted to reduce positive, arousing alcohol expectancies and increase the activation of negative, sedating alcohol expectancies. The single session classroom-based intervention was then modified for implementation in high school students and resulted in significant reductions in alcohol consumption and positive alcohol expectancies with male and female students (Cruz, 2007).

With high-risk drinking behavior being a problem on college campuses, an expectancy-based intervention could greatly benefit this particular population. Recent efforts have been made to implement an Expectancy Challenge that can be administered in small and large college classrooms. Results of implementation within a small classroom setting have been very promising in reducing alcohol consumption and positive alcohol expectancies in male and female students (Sivasithamparam, 2008). However, with larger classrooms of 100+ students becoming a more typical setting especially during students' first year in introductory college courses, a single-session "Expectancy Challenge" intervention designed for a large group setting needed to be validated. Latest efforts to validate the large group presentation for effectively reducing alcohol consumption and positive alcohol expectancies appear promising.

While expectancy based strategies are very promising within a college setting when implemented in a simulated bar lab setting (Darkes & Goldman, 1993, 1998; Dunn et al. 2000) and in a single session classroom based presentation (Sivasithamparam, 2008; Schriener, 2009), they have not been targeted to specifically to the high-risk Greek community. Considering that expectancy challenge interventions have been proven to be most effective with heavy drinking college students and it is evident that members of the Greek system have been identified as high-

risk drinkers to the point of level of involvement within the system being correlated to level of drinker risk and negative consequences; effective programming for the purpose of prevention and intervention is undoubtedly necessary. Furthermore, while expectancy based interventions designed to reduce risky drinking behavior and negative consequences specifically for Greek members have not been attempted before, extensive research has documented alcohol expectancies as playing a pivotal role in level of alcohol consumption within the Greek system. Larimer and colleagues compared undergraduates living in residence halls to those living in Greek houses and revealed that not only did those living in Greek houses drank in greater quantities and experienced more negative consequences, fraternity men also reported greater likelihood of sexual and aggression effects of alcohol and all respondents expected more positive effects from higher from alcohol at more intoxicating consumption levels (Larimer, Anderson, Baer, & Marlatt, 2000). Furthermore, in a regression analysis analyzing the impact of family history, prior high school drinking, residence type, and alcohol expectancies in predicting current drinking and negative consequences in Greek and non-Greeks, alcohol expectancies significantly contributed to the prediction of typical drinks per drinking episode for men (Larimer et al., 2000). Members of the Greek system were also more likely to believe alcohol facilitated social interactions and was an integral part of the bonding experience in college (Alva, 1998). Furthermore, in a study focused on women pledging a sorority found that those pledging were more likely to experience negative consequences as well as expect more positive outcomes related to drinking such as increased social desirability than non-sorority women (Elias et al. 1996). In the present study, the Expectancy Challenge protocol will be tailored to administration within Greek chapters. The Greek population would especially benefit from an expectancy-based

intervention, which focuses on them as a unique community. The purpose of this study is to reduce alcohol consumption and positive alcohol expectancies in fraternities and sororities.

METHOD

Participants

Participants included 525 Greek students from four fraternities and four sororities. Of the 525 participants who completed baseline measures, 354 (67.4%) completed 1-month follow-up. Statistical comparisons of those who completed follow-up with those who did not revealed no significant differences in baseline measures of drinking (all variables), alcohol expectancies, or treatment assignment (Experimental = 67.3%, Control = 66.4%). Participants in all 4 fraternities and 1 of the sororities completed follow-up measures in person (n = 266, follow-up rate = 82.6%). The remaining three sororities completed follow-up measures online (n = 88, follow-up rate = 52.4%). To rule-out potential method effects that could result from collecting data online versus in-person, analyses were conducted to compare participants on measures of alcohol use and alcohol expectancies. No significant differences were found, therefore, participants were collapsed across follow-up completion method.

Measures

Alcohol Consumption

Alcohol consumption for the 4-weeks prior to receiving the expectancy presentation or the control presentation as well as the 4-week period following the presentations was measured using the retrospective, self-report, timeline follow-back procedure (Sobell & Sobell, 1992). The timeline follow-back procedure has good reliability (r=0.76-0.98) and validity (Sobell, Sobell, Klajner, & Pavan, 1986; Sobell & Sobell, 1992; Tonigan, Miller, & Brown, 1997) and is an acknowledged method of collecting alcohol use information. Participants were given the definition of standard drink equivalents and then asked to identify reference points within each 4-

week period to enhance recall of alcohol consumption. This method of measuring alcohol use on a calendar is the standard method throughout the field because it provides exact drinking data for each drinking occasion, and can also be used to calculate BAC when duration of drinking episode is also recorded. The timeline follow-back method provides a wealth of alcohol use data including total number of drinks, average drinks per week, average BAC per week, and peak BAC over the time period.

Factor Model-Based Expectancy Measures

Alcohol expectancies were assessed before and after the presentation of the expectancy challenge and educational control presentations using the Comprehensive Effects of Alcohol Scale (CEOA; Fromme, et al., 1993). The CEOA is a factor model-based expectancy measure which has good internal consistency and temporal stability (range of r=0.53-0.81 for the different factors). The Alcohol Expectancy Questionnaire (AEQ; Brown, Goldman, Inn, & Anderson, 1980) is an alternative measure of alcohol expectancies that has been widely implemented and has shown to have a high correlation with alcohol consumption. However, for the purposes of this study the CEOA was determined to be more appropriate since it is shorter in length and also measures negative expectancies. The CEOA utilizes a 4-point rating scale and yields four positive subscales (Sociability, Tension Reduction, Liquid Courage, and Sexuality) and three negative subscales (Cognitive and Behavioral Impairment, Risk and Aggression, and Self-Perception).

Procedure

The presentation was delivered to Greek chapters during their pre-scheduled chapter meetings. The experimenter administered the expectancy challenge presentation and the

educational control presentation following the same protocol. An informed consent was completed prior to receiving the presentation, in which students were informed that the purpose of the research is to provide them with information on media literacy and the pharmacological effects of alcohol, and then were asked to provide consent to participate in the study. All students were informed of the benefits and risks of participation. Participants were told the benefits of receiving the expectancy challenge is primarily improved media literacy.

Expectancy Challenge Protocol

Students in the expectancy challenge treatment condition received the modified Expectancy Challenge presentation, which presented the pharmacological effects of alcohol and challenged their beliefs regarding positive and arousing effects of alcohol. The presenter introduced herself to the group and led participants through the completion of the timeline follow-back measure. Information about what a standard drink was provided prior to completion of the measure. Following completion of the demographic questionnaire, timeline follow-back, and alcohol expectancy measures, students were presented with commercials depicting alcohol advertisements. They were then asked to identify the positive and arousing alcohol expectancies prompted in each advertisement. The presentation continued to discuss the actual physiological effects of alcohol on the body and behavior. The participants then discussed the contradictions of the arousing expectancies depicted in the media advertisements and alcohol's pharmacological effects.

RESULTS

Comparability of Groups

The first step in the analysis process was to evaluate the alcohol use levels reported by the 354 (67.4%) participants who completed follow-up measures. Because the purpose of this project was to evaluate the effects of an expectancy curriculum on self-reported expectancies and alcohol use, participants who abstained from alcohol use at baseline and follow-up (n=22) and those who did not properly complete the alcohol use calendar (n=14) were excluded from subsequent analyses. Participants' mean age was 19.76 (*SD* = 1.2) years and 49.4% (n = 157) were male while 50.6% (n = 161) were female. Approximately 83% identified themselves as Caucasian, 12.9% Hispanic, 1.3% Asian American, 0.3% African-American, and 2.5% other.

To demonstrate comparability between experimental and control groups within each gender, analyses were conducted on demographic variables, baseline drinking behavior, and baseline alcohol expectancies. No significant differences were found based on age [χ^2 (6, N = 318) = 5.66, p = .46], class standing [χ^2 (3, N = 318) = 1.03, p = .79], or ethnicity [χ^2 (3, N = 318) = 6.15, p = .19]. Comparability of alcohol use at baseline, across groups and within gender, was confirmed with a series of 2 x 2 ANOVAs for each dependent variable of interest. There was no significant main effect of condition found for any alcohol use variables including average weekly peak blood alcohol content, average drinks per sitting, and average drinking days per week (details including means and standard deviations presented in Table 1). Comparability of alcohol expectancies at baseline across groups was also evaluated with 2 x 2 ANOVAs. Using CEOA subscale scores as dependent variables, no significant main effects of condition were found for six of the seven subscales (Sociability, Tension Reduction, Liquid Courage, Sexuality,

Cognitive/Behavioral Impairment, and Risk and Aggression). However, there was a significant main effect of condition found for the Self-Perception subscale [F (1, 314) = 16.32, $p < .001$], with the control group reporting a significantly higher mean score than those in the experimental group. This baseline difference was subsequently taken into consideration in interpreting overall results.

Alcohol Expectancy Analysis

Changes in alcohol expectancies were analyzed using a 2 (Experimental, Control) x 2 (pretest, posttest) x 2 (male, female) mixed analyses of variance on each of the seven subscales of the CEOA (Sociability, Tension Reduction, Liquid Courage, Sexuality, Cognitive/Behavioral Impairment, Risk and Aggression, Self-Perception). Significant shifts in alcohol expectancies due to treatment effects can be seen by a significant group x time interaction. Consistent with the a-priori hypotheses, significant group x time interactions were seen on the CEOA subscales of: Sociability [F (1,310) = 7.37, $p < .01$], Tension Reduction [F (1,308) = 7.57, $p < .01$], Liquid Courage [F (1,308) = 6.73, $p < .01$], and Sexuality [F (1,310) = 9.02, $p < .01$]. The experimental group showed significant reductions in their mean scores on all four positive subscales of the CEOA compared to those of those in the control group. No significant treatment effects were seen on the subscales of: Cognitive/Behavioral Impairment, Risk and Aggression, and Self-Perception. However, there was a significant time x gender interaction on the Self-Perception subscale [F (1,310) = 5.27, $p < .05$], with mean scores of males increasing more than females. Means and standard deviations of changes in alcohol expectancies are provided in Table 2.

Alcohol Use Analysis

Effects of treatment exposure on drinking behavior from baseline to 1-month follow-up was assessed using a series of 2 (Experimental, Control) x 2 (pretest, posttest) x 2 (male, female) mixed analyses of variance. Results revealed significant treatment effects on average number of drinks consumed in one sitting [F (1, 312) = 11.23, $p < .001$], average weekly peak blood alcohol content [F (1, 314) = 26.80, $p < .001$], average number of days drinking per week [F (1, 314) = 36.55, $p < .001$]. This finding indicates that participants in the experimental group showed significantly greater reductions from baseline to follow-up in their average number of drinks consumed in one sitting, average weekly peak blood alcohol content, and average number of drinking days per week relative to those in the control group. Results also indicated there was a significant three-way interaction between group, time, and gender for average weekly peak blood alcohol content [F (1, 314) = 5.45, $p < .05$]. Males in the experimental group showed a greater decrease in their average weekly peak blood alcohol content when compared to males in the control group. Females in the experimental group decreased their average weekly peak blood alcohol content while females in the control group increased. Means and standard deviations of changes in alcohol consumption by group and gender are provided in Table 3 and Table 4.

DISCUSSION

The classic "Expectancy Challenge" intervention which utilizes a simulated bar environment has shown utility in altering expectancies and reducing alcohol use within the college population (Darkes & Goldman, 1993, 1998; Dunn, Lau, & Cruz, 2000). The requirement of a bar-lab, however, is a significant limitation in the widespread implementation of an effective prevention and intervention program across college campuses. Cruz and Dunn (2003) were the first to demonstrate an effective program designed for the classroom setting that was based upon the principals of the classic expectancy challenge and resulted in significant reductions in positive/arousing alcohol expectancies among elementary students. The single session, classroom-based expectancy challenge was then modified for use with high school students and resulted in decreases in positive alcohol expectancies and drinking variables (Cruz, 2007). The expectancy challenge protocol was then modified for use within the college classroom setting and has shown promising results in reducing alcohol consumption and positive alcohol expectancies (Sivasithamparam, 2008).

The purpose of the present study was to implement a modified version of the classroom-based expectancy challenge presentation targeted specifically to the high-risk population of Greek college students. Consistent with the main hypotheses, results indicated that for both males and females, the expectancy challenge presentation was successful in modifying alcohol expectancies on all four positive subscales of the CEOA: sociability, tension reduction, sexuality, and liquid courage. Further, greater reductions in risky drinking behavior were observed in participants who received the expectancy challenge presentation relative to those in the educational control condition. Significant reductions in alcohol consumption were seen on

measures of quantity (average drinks per sitting), frequency (average drinking days per week), and heavy episodic drinking (average weekly peak blood alcohol content).

The current study has many important implications. First, exposure to the expectancy challenge condition resulted in decreases in positive and arousing alcohol expectancies in both males and females. While negative and sedating alcohol expectancies were not significantly affected by treatment exposure, extant research suggests that positive/arousing alcohol expectancies appear to have a greater impact on drinking behavior specifically within the Greek population. Current research indicates that Greek college students are more likely to believe alcohol promotes social facilitation and bonding relative to their non-Greek peers (Alva, 1998). Further, fraternity men report greater sexual expectancies from drinking greater quantities of alcohol (Larimer et al., 2000) and sorority women report higher level of perceived social desirability when consuming alcohol (Elias et al. 1996).

Secondly, the current study demonstrated significant reductions in alcohol consumption within fraternity and sorority members following exposure to a 50-minute group-delivered expectancy challenge presentation. Of the various types of interventions aimed at reducing risky drinking behaviors on college campuses, few have been targeted specifically to the Greek community. And of those targeted to the Greek population, most have proven unsuccessful or provided little clinical utility (Harrington, Brigham, & Clayton, 1999; Marlatt et al. 1998). Further, of the programs that have shown reductions in alcohol use over time within the Greek community, many utilize time intensive individually-based interventions (Larimer et al., 2001) or multiple group training sessions (Garvin et al., 1990). Therefore, the current study is not only revolutionary in being able to effectively reduce alcohol consumption within the high-risk Greek

population, but is unique in that it is implemented in a single-session group setting. The structure of the current intervention program is therefore practical for widespread implementation in Greek chapter houses across all college campuses.

Another important implication involves the demonstrated effectiveness of the expectancy challenge in reducing alcohol consumption with female college students. Previous research on the expectancy challenge protocol has showed limited results with females (Dunn et al., 2000; Wiers, van de Luitgaarden, van de Wildenberg, & Smulders, 2005). The present study effectively decreased alcohol consumption on measures of frequency, quantity, and heavy episodic drinking with both male and female college students.

There are a few limitations in the current study. Alcohol consumption was only assessed 1-month post intervention. Therefore, the longevity of the study's positive results on decreasing alcohol consumption remains unknown. Further, because of the considerable fluctuations in college students' drinking over a typical year, a 1-month follow-up only provides a small picture of the students' overall drinking behavior. The current study, however, compared alcohol consumption between groups on the same 4-week period, thereby diminishing possible temporal effects. Future studies should address the long-term effect of the expectancy challenge with Greek college students.

Another limitation of the current study resulted from the difficulty in gaining access to the fraternities and sororities. Of the original 10 Greek chapters that agreed to participate, 8 were able to schedule times to participate in baseline data collection, and only 5 allowed for in-person follow-up data collection. The remaining 3 Greek chapters completed posttest measures online. Analyses were conducted to ensure the responses of online data completers did not significantly

differ from in-person data completers. However, online data collection resulted in a lower response rate when compared to data collected in-person.

Finally, the current study did not account for level of involvement in the Greek system and its relation to alcohol consumption. Previous research has demonstrated that level of Greek involvement is related to drinking behavior (Bartholow et al. 2003; Capone et al. 2007).

In conclusion, the current study demonstrated significant changes in alcohol expectancies within a high-risk population resulting from a 50-minute group presentation. Previous extant research has only shown similar changes in alcohol expectancies following the presentation of multiple sessions of the classic expectancy challenge, which occurs in a simulated bar lab setting and includes the administration of alcohol. The study also demonstrated significant reductions in alcohol consumption on measures of frequency, quantity, and heavy episodic drinking following the exposure to the group-delivered expectancy challenge presentation. Therefore, the structure and effectiveness of the current intervention program proves extremely useful and practical for widespread implementation in Greek chapter houses across all college campuses.

APPENDIX A. TABLES

Table 1. Analysis of Baseline Drinking Variables

Measures	Males Baseline Mean (SD)	Females Baseline Mean (SD)		Significance
Drinking			*df*	F (Condition)
Weekly pBAC			1,314	1.38
Intervention	0.127 (0.098)	0.099 (0.084)		
Control	0.181 (0.146)	0.076 (0.077)		
Avdps			1,312	0.40
Intervention	8.28 (3.90)	4.89 (2.75)		
Control	9.24 (5.26)	4.54 (2.79)		
Avdapw			1,312	0.08
Intervention	1.78 (1.31)	1.14 (0.78)		
Control	1.94 (1.22)	0.90 (0.78)		
Avdrpw			1,314	1.48
Intervention	18.94 (17.68)	6.92 (5.66)		
Control	24.09 (21.32)	6.16 (5.64)		
Pdps			1,314	0.24
Intervention	13.56 (7.38)	7.74 (4.55)		
Control	16.22 (10.66)	5.93 (4.13)		

*p<.05, **p<.01, ***p<.001

Note: Weekly pBAC = average weekly peak blood alcohol content, Avdps = average drinks per sitting, Avdapw = average drinking days per week, Avdrpw = average drinks per week, Pdps = peak drinks per sitting

Table 2. Changes in CEOA subscale scores from Baseline to Follow-up

	Males M (SD)		Females M (SD)		Significance	
	Pretest	Posttest	Pretest	Posttest	F(time x group)	F(time x group x gender)
Sociability					7.37**	0.27
Intervention	26.75 (4.29)	25.89 (5.35)	27.32 (3.80)	25.38 (5.51)		
Control	26.57 (3.99)	26.79 (4.48)	27.55 (3.63)	27.54 (3.63)		
Tension Reduction					7.57**	0.04
Intervention	8.71 (1.96)	8.42 (2.33)	7.87 (2.01)	7.04 (2.41)		
Control	8.68 (2.02)	9.14 (2.20)	7.03 (2.07)	7.26 (2.11)		
Liquid Courage					6.78**	0.34
Intervention	14.42 (3.49)	13.83 (4.00)	13.68 (3.49)	13.12 (3.85)		
Control	14.50 (3.59)	14.92 (3.55)	13.35 (4.09)	13.41 (3.91)		
Sexuality					9.02**	0.35
Intervention	11.04 (2.84)	10.50 (3.27)	10.18 (3.28)	9.42 (3.62)		
Control	11.57 (2.52)	11.73 (2.86)	10.97 (3.67)	11.26 (3.67)		
Cognitive/Behavior					0.40	0.81
Intervention	23.88 (5.25)	25.02 (5.84)	26.46 (5.27)	27.14 (5.55)		
Control	23.96 (5.54)	25.23 (6.24)	25.48 (4.63)	25.45 (4.50)		
Risk/Aggression					1.67	0.15
Intervention	12.56 (3.66)	12.79 (4.01)	12.51 (3.41)	12.23 (3.77)		
Control	13.64 (3.75)	14.17 (3.73)	13.00 (3.36)	13.29 (3.77)		
Self-Perception					0.46	2.96**
Intervention	6.65 (2.24)	7.18 (2.62)	8.15 (2.76)	8.51 (3.27)		
Control	8.03 (3.10)	9.30 (3.52)	9.38 (2.48)	9.41 (2.40)		

*p<.05, **p<.01, ***p<.001

Table 3. Changes in Alcohol Consumption from Baseline to Follow-up

Measures	Baseline Mean (SD)	1-month Follow-up Mean (SD)	Significance
Drinking			F (Group x Time)
Weekly pBAC			26.80***
Intervention	0.111 (0.092)	0.062 (0.068)	
Control	0.143 (0.135)	0.149 (0.081)	
Avdps			11.23***
Intervention	6.39 (3.71)	4.50 (3.52)	
Control	7.55 (5.05)	7.11 (3.08)	
Avdapw			36.55***
Intervention	1.42 (1.09)	1.10 (0.98)	
Control	1.57 (1.19)	2.14 (1.16)	
Avdrpw			8.19**
Intervention	12.17 (13.76)	6.68 (7.96)	
Control	17.64 (19.37)	15.42 (9.86)	
Pdps			14.66***
Intervention	10.28 (6.60)	7.17 (6.89)	
Control	12.52 (10.14)	12.71 (6.57)	

*p<.05, **p<.01, ***p<.001

Note: Weekly pBAC = average weekly peak blood alcohol content, Avdps = average drinks per sitting, Avdapw = average drinking days per week, Avdrpw = average drinks per week, Pdps = peak drinks per sitting

Table 4. Changes in Alcohol Consumption from Baseline to Follow-up by Group and Gender

Measures	Baseline Mean (SD)	1-month Follow-up Mean (SD)	Significance	
Drinking			F (Group x Time)	F (Group x Time x Gender)
Weekly pBAC			26.80***	5.45*
Males				
Intervention	0.127 (0.098)	0.072 (0.070)		
Control	0.181 (0.146)	0.162 (0.089)		
Females				
Intervention	0.099 (0.084)	0.055 (0.066)		
Control	0.076 (0.077)	0.127 (0.059)		
Avdps			11.23***	1.08
Males				
Intervention	8.28 (3.90)	5.81 (3.95)		
Control	9.24 (5.26)	8.02 (3.51)		
Females				
Intervention	4.89 (2.75)	3.46 (2.75)		
Control	4.54 (2.79)	5.51 (0.70)		
Avdapw			36.55***	0.59
Males				
Intervention	1.78 (1.31)	1.35 (1.14)		
Control	1.94 (1.22)	2.36 (1.34)		
Females				
Intervention	1.14 (0.78)	0.91 (0.80)		
Control	0.90 (0.78)	1.76 (0.59)		

*p<.05, **p<.01, ***p<.001

Note: Weekly pBAC = average weekly peak blood alcohol content, Avdps = average drinks per sitting, Avdapw = average drinking days per week

APPENDIX B. INFORMED CONSENT FORM

Dear Research Participant,

You have been invited to participate in a research study conducted by a faculty member in the UCF Psychology Department.

Your participation will involve anonymously completing survey measures before and after receiving a presentation on media literacy and a summary of related research findings focused on the effects of alcohol. Questions will ask about alcohol use and related attitudes and behaviors. You can participate in completing these questions no matter what your own alcohol use history may be (never drinker, non-drinker, regular drinker, etc.). Your identity and all of your responses will be kept **anonymous**. Information gathered will only be used anonymously to improve the education students like you receive. ***Your honesty is essential to the study, which is why we guarantee complete anonymity.***

You can withdraw from the study at any time without penalty. Only those individuals who are at least 18 years of age will be included in this study. If you provide consent to participate, you will be asked to complete a survey today, then again following the presentation via brief online surveys.

Although there are no foreseeable risks from your participation in this investigation, should you have an emotional reaction to any of the material presented, please notify the leader in your session or any of the primary investigators listed below:

Project Coordinator:	Principal Investigator:	Co-Investigator:
Abigail Fried	Michael Dunn, Ph.D.	Tom Hall, MSW, LCSW
Dept. of Psychology	Dept. of Psychology	SDES
afried@mail.ucf.edu	mdunn@mail.ucf.edu	tvhall@mail.ucf.edu
(407) 823-2522		(407) 823-0869

In addition, the University requires that we inform every research participant of the following:

You acknowledge that the University of Central Florida is an agency of the State of Florida and that the University of Central Florida's operations and liabilities are regulated by Florida law, including the University of Central Florida's ability to indemnify any person, firm or corporation for injury or loss caused by the University of Central Florida; that the State of Florida is self-insured to the extent of its liability under law; and that liability in excess of that specified in statute may be awarded only

through special legislative action. Accordingly, the University of Central Florida's ability to compensate you for any injury suffered during this research study is very limited.

Information regarding your rights as a research volunteer may be obtained from:

Barbara Ward, CIM

University of Central Florida (UCF)

Office of Research & Commercialization

12201 Research Parkway, Suite 501

Orlando, FL 32826-3246

Telephone: 407-823-2901

If you have no objections to participating in this study, **please print and sign your name below**. Please include your email address and phone number if you wish to be contacted to complete the online follow-up surveys and receive your compensation. If you feel you need additional information, please contact Abigail Fried at 407-823-2522.

☐ I want to participate in this study.

☐ I do not want to participate in this study.

_____ _____

Your Name (Please print clearly) Your Signature (Please Sign)

APPENDIX C. TIMELINE FOLLOWBACK

Sunday	Monday	Tuesday	Wed.	Thursday	Friday	Saturday
August 16 **Drinking Occasion:** # Drinks: ____ Over ____ hours	***17*** **Drinking Occasion:** # Drinks: ____ Over ____ hours	***18*** *Sorority Recruitment* **Drinking Occasion:** # Drinks: ____ Over ____ hours	***19*** **Drinking Occasion:** # Drinks: ____ Over ____ hours	***20*** **Drinking Occasion:** # Drinks: ____ Over ____ hours	***21*** **Drinking Occasion:** # Drinks: ____ Over ____ hours	***22*** *Bid Day!!!* **Drinking Occasion:** # Drinks: ____ Over ____ hours
23 *Frat Recruitment* **Drinking Occasion:** # Drinks: ____ Over ____ hours	***24*** *Classes begin* **Drinking Occasion:** # Drinks: ____ Over ____ hours	***25*** **Drinking Occasion:** # Drinks: ____ Over ____ hours	***26*** **Drinking Occasion:** # Drinks: ____ Over ____ hours	***27*** **Drinking Occasion:** # Drinks: ____ Over ____ hours	***28*** **Drinking Occasion:** # Drinks: ____ Over ____ hours	***29*** **Drinking Occasion:** # Drinks: ____ Over ____ hours
30 **Drinking Occasion:** # Drinks: ____ Over ____ hours	***31*** **Drinking Occasion:** # Drinks: ____ Over ____ hours	***September 1*** **Drinking Occasion:** # Drinks: ____ Over ____ hours	***2*** **Drinking Occasion:** # Drinks: ____ Over ____ hours	***3*** **Drinking Occasion:** # Drinks: ____ Over ____ hours	***4*** **Drinking Occasion:** # Drinks: ____ Over ____ hours	***5*** *UCF vs. Samford* **Drinking Occasion:** # Drinks: ____ Over ____ hours
6 **Drinking Occasion:** # Drinks: ____	***7*** *Labor Day* **Drinking Occasion:** # Drinks: ____ Over ____	***8*** **Drinking Occasion:** # Drinks: ____	***9*** **Drinking Occasion:** # Drinks: ____ Over ____	***10*** **Drinking Occasion:** # Drinks: ____ Over ____	***11*** **Drinking Occasion:** # Drinks: ____	***12*** *UCF vs. Southern Miss* **Drinking Occasion:** # Drinks: ____ Over ____

Over ____ hours	hours	Over ____ hours	hours	hours	Over ____ hours	hours

APPENDIX D. COMPREHENSIVE EFFECTS OF ALCOHOL MEASURE

The following section assesses what you would expect to happen <u>if you were under the influence of alcohol</u>.

If you do not drink alcohol, please answer questions based on your beliefs, knowledge, and understanding of the effects of alcohol.

Circle one option from disagree to agree – depending on whether you expect the effect to happen to you if you were <u>under the influence of alcohol</u>. These effects will vary, depending upon the amount of alcohol you typically consume.

<u>This is not a personality assessment</u>. We want to know what you expect to happen if you were to drink alcohol, not how you are when you are sober. Example: If you are always emotional, you <u>would not</u> circle agree as your answer unless you expected to become MORE EMOTIONAL if you drank.

<u>If I were under the influence of alcohol</u>:

1. I would be outgoing……....	Disagree	Slightly Disagree	Slightly Agree	Agree
2. My senses would be dulled……......	Disagree	Slightly Disagree	Slightly Agree	Agree
3. I would be humorous……....	Disagree	Slightly Disagree	Slightly Agree	Agree
4. My problems would seem worse……....	Disagree	Slightly Disagree	Slightly Agree	Agree
5. It would be easier to express my feelings…….....	Disagree	Slightly Disagree	Slightly Agree	Agree
6. My writing would be impaired……	Disagree	Slightly Disagree	Slightly Agree	Agree
7. I would feel sexy…….	Disagree	Slightly Disagree	Slightly Agree	Agree
8. I would have difficulty thinking……	Disagree	Slightly Disagree	Slightly Agree	Agree
9. I would neglect my obligations……	Disagree	Slightly Disagree	Slightly Agree	Agree
10. I would be dominant……..	Disagree	Slightly Disagree	Slightly Agree	Agree
11. My head would feel fuzzy……...	Disagree	Slightly Disagree	Slightly Agree	Agree
12. I would enjoy sex more……...	Disagree	Slightly Disagree	Slightly Agree	Agree

<u>If I were under the influence of alcohol</u>:

13. I would feel dizzy……	Disagree	Slightly Disagree	Slightly Agree	Agree
14. I would be friendly……..	Disagree	Slightly Disagree	Slightly Agree	Agree
15. I would be clumsy……..	Disagree	Slightly Disagree	Slightly Agree	Agree
16. It would be easier to act out my fantasies……..	Disagree	Slightly Disagree	Slightly Agree	Agree
17. I would be loud, boisterous, or noisy……..	Disagree	Slightly Disagree	Slightly Agree	Agree
18. I would feel peaceful……	Disagree	Slightly Disagree	Slightly Agree	Agree
19. I would be brave and daring……	Disagree	Slightly Disagree	Slightly Agree	Agree
20. I would feel unafraid……...	Disagree	Slightly Disagree	Slightly Agree	Agree
21. I would feel creative……..	Disagree	Slightly Disagree	Slightly Agree	Agree
22. I would be courageous……..	Disagree	Slightly Disagree	Slightly Agree	Agree
23. I would feel shaky or jittery the next day…….	Disagree	Slightly Disagree	Slightly Agree	Agree
24. I would feel energetic……	Disagree	Slightly Disagree	Slightly Agree	Agree

25. I would act aggressively……	Disagree	Slightly Disagree	Slightly Agree	Agree
26. My responses would be slow……..	Disagree	Slightly Disagree	Slightly Agree	Agree
27. My body will be relaxed……..	Disagree	Slightly Disagree	Slightly Agree	Agree
28. I would feel guilty……	Disagree	Slightly Disagree	Slightly Agree	Agree
29. I would feel calm……	Disagree	Slightly Disagree	Slightly Agree	Agree
30. I would feel moody……	Disagree	Slightly Disagree	Slightly Agree	Agree
31. It would be easier to talk to people……..	Disagree	Slightly Disagree	Slightly Agree	Agree
32. I would be a better lover……	Disagree	Slightly Disagree	Slightly Agree	Agree
33. I would feel self-critical……..	Disagree	Slightly Disagree	Slightly Agree	Agree
34 I would be talkative……	Disagree	Slightly Disagree	Slightly Agree	Agree
35. I would act tough……	Disagree	Slightly Disagree	Slightly Agree	Agree
36. I would take risks……	Disagree	Slightly Disagree	Slightly Agree	Agree
37. I would feel powerful……..	Disagree	Slightly Disagree	Slightly Agree	Agree
38. I would act sociable……	Disagree	Slightly Disagree	Slightly Agree	Agree

APPENDIX E. DEMOGRAPHIC MEASURE

Age: _____ years old

(Circle only ONE answer for each question below, except where noted otherwise)

Sex: Male Female

Current Weight: _____ lbs

What is your CURRENT educational status?

Freshman	Sophomore	Junior
Senior	Post-Baccalaureate	Non-Degree Seeking

Have you completed AlcoholEDU?

Yes No

Which answer BEST describes your ethnicity?

Caucasian/White African-American/Black Hispanic Asian-American Other

Which answer BEST describes your living situation?

Residence hall University-affiliated off-campus Fraternity/sorority

Independent house/apartment

With whom do you live? (circle all that apply)

Roommate(s) Alone Parent(s) Significant other Other (specify: _____)

Are you CURRENTLY on an NCAA athletic team at the University of Central Florida?

Yes No

Are you CURRENTLY participating in any club sports or rec leagues at UCF?

Yes No

How many hours do you typically work at a job PER WEEK? _____ hours

What is your FATHER'S highest level of education? (Circle ONE)

Less than High School	Associate's Degree (A.A. or A.S.)
Some High School	Bachelor's Degree
High School Diploma/GED	Master's Degree
Some College	Doctoral Level Degree (Ph.D, M.D., J.D.)

What is your MOTHER'S highest level of education? (Circle ONE)

Less than High School	Associate's Degree (A.A. or A.S.)
Some High School	Bachelor's Degree
High School Diploma/GED	Master's Degree
Some College	Doctoral Level Degree (Ph.D, M.D., J.D.)

APPENDIX F. IRB APPROVAL

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901, 407-882-2012 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

EXPEDITED CONTINUING REVIEW APPROVAL NOTICE

From : **UCF Institutional Review Board**
FWA00000351, Exp. 10/8/11, IRB00001138

To : **Michael E. Dunn, Ph.D.** and Co-PIs if applicable: **Thomas V. Hall, MSW**

Date : **June 02, 2009**

IRB Number: **SBE-07-05046**

Study Title: **Implementation of an Alcohol Expectancy Curriculum Designed to Reduce Alcohol Use and Improve Academic Performance among First-Year University Students**

Dear Researcher,

This letter serves to notify you that the continuing review application for the above study was reviewed and approved by the IRB designated reviewer on **6/2/2009** through the expedited review process according to 45 CFR 46 (and/or 21 CFR 50/56 if FDA-regulated).

Continuation of this study has been approved for a one-year period. The expiration date is 6/1/2010. This study was determined to be no more than minimal risk and the category for which this study qualified for expedited review is:

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Subjects or their representatives must receive a copy of the consent form(s).

All data must be retained in a locked file cabinet for a minimum of three years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained on a password-protected computer if electronic information is used. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

To continue this research beyond the expiration date, a Continuing Review Form must be submitted 2 – 4 weeks prior to the expiration date. Use the Unanticipated Problem Report Form or the Serious Adverse Event Form (within 5 working days of event or knowledge of event) to report problems or events to the IRB. Do not make changes to the study (i.e., protocol methodology, consent form, personnel, site, etc.) before obtaining IRB approval. Changes can be submitted for IRB review using the Addendum/Modification Request Form. An Addendum/Modification Request Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at https://iris.research.ucf.edu .

On behalf of Tracy Dietz, Ph.D., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 06/02/2009 02:18:34 PM EDT

Joanne Muratori

IRB Coordinator

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