

PARENTS AS PARTNERS IN ALCOHOL PREVENTION: A UNIVERSITY PERSPECTIVE

by

MICHAEL D. SHUTT

(Under the Direction of Diane L. Cooper)

ABSTRACT

This study proposed and tested an intervention to provide guidelines and education to parents of first-year college students. It was hypothesized that students of parents who received this intervention would use less alcohol, tobacco and other drugs (ATOD) during the first three weeks on a college campus. This study also proposed and tested a model to assess the predictors of ATOD use among first-year college students. Student past ATOD use, intent to use alcohol, perceived parental expectations, actual parental expectations, race, gender, age of first use, and intent to join a Greek letter organization were variables in this model.

The study included three surveys including a survey for parents of first-year college students during summer orientation at a large, public university in the Southeast. The survey assessed parental perceptions of their students' ATOD use in addition to their expectations of their students. The second survey was given to first-year students attending first-year student summer orientation. This survey assessed the students' use of ATOD during the past year and during the summer prior to matriculation. In addition, students reported their perceptions of their parents' expectations, intent to use alcohol post-matriculation, intent to join a Greek organization and other demographic information. The third survey was given to all first-year students three weeks into the fall semester of their first year and assessed student ATOD use over the first three weeks of classes. Responses from all three surveys were matched.

Several statistical analyses were conducted to answer five research questions relating to the influence parents have on students' ATOD use during their first two weeks on a college campus. It was found that there were no differences between the students whose parents received the intervention and those that did not. Additional analyses were conducted to predict what influences a students alcohol use during the first three weeks on campus. It was found that alcohol use was correlated with most of the variables in the proposed model. Future research is needed to explore further all the factors that influence first-year student ATOD use.

INDEX WORDS: College Students, Alcohol, Other Drugs, Parents, Parental Influence

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DEDICATION

This work is dedicated to my parents who have supported me in every aspect of my life. I love you.

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Who didn't play a part in this research? For those about to read the acknowledgements, thank you for understanding that it admittedly took a village to make this happen. If you are reading this, there is a good chance you will be mentioned.

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A word to those that are making any journey: Love, learn, and celebrate every day!

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CHAPTER 1

INTRODUCTION

The high-risk use of alcohol among college students in the United States has persisted for decades and continues to be an obstacle to student success. Wechsler, Lee, Kuo, Seibring, Nelson, & Lee (2002) found that 44.4% of college students reported binge drinking, and while more students abstained in comparison to early studies, there were increases in the percentage of students binge drinking. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) (2002) cited many studies on student alcohol misuse and abuse and found problems ranging from academic difficulties to health crises, including death. Campus administrators continue to struggle with the challenges of dealing with this high-risk use of alcohol and the negative outcomes associated with it.

Colleges and universities have responded to this problem with a variety of approaches. Most have provided prevention programming focused on intrapersonal and interpersonal factors related to high-risk alcohol use (Wechsler, Kelley, Weitzman, San Giovanni, & Seibring, 2000a). As a result of this type of approach, Wechsler et al. (2002) noted that from 1993 to 2001 more students reported receiving education on the risks of binge drinking and the dangers of overdosing on alcohol, which is a critical first step in prevention. Some campuses have also integrated environmental approaches recommended by the Department of Education's Higher Education Center for Alcohol and Other Drug Abuse and Violence Prevention (HEC) (2006a), including expanded campus policies and consistency in enforcement of these policies by university officials. In addition, campuses have started working to change city, county and state

laws, such as reducing alcohol license density, to ensure fewer alcohol distribution points in one area. Although many approaches have been implemented, the rates of high-risk student drinking do not appear to be changing (Wechsler et al., 2002)

Although there is little change in high-risk drinking among college students, there is research demonstrating that incoming student behaviors and attitudes are changing. The students now enrolling in U.S. institutions of higher education have higher expectations, have healthier behaviors and want parental involvement in all aspects of college life. This new generation, denoted by Howe & Strauss (2000) as the Millennial generation, question everything and call on their parents when difficult situations arise. As they arrive on campus, these students experience greater academic demands and their "need" for parental intervention grows. Howe & Strauss (2000) also noted that Millennials need structure in their lives and are interested in good behavior. They are more likely to follow the rules, rather than break them just because they are there. In fact, Howe and Straus (2000) stated that these students respect authority and are more comfortable with parental values than previous generations. The results of these generational changes can be seen with the decreases in alcohol, tobacco, and marijuana use among 9th to 12th graders from 1991 to 2003 (Centers for Disease Control and Prevention [CDC], 2004). These differences might provide campuses with the ideal opportunity to engage this generation of college students in new ways regarding alcohol and other drug prevention.

It is not only the attitudes and behaviors of the students that are changing. The roles of college students' parents are also changing, including a more intensive and pervasive involvement on campus. Much has been written about this increased interaction occurring between parents, students, and campus faculty and staff instigated by a generation of very

engaged parents. These parents have been deemed “helicopter parents” because of their intense involvement in the lives of their students on campus (Santovec, 2004).

These differences in today’s parents might be the result of changing family structures and the fact that more parents themselves have attended college (Daniel & Ross, 2001). The increased involvement of parents in the lives of students on campuses has created very complex issues. Parents were once absent from campus given the period of *in loco parentis*, where colleges and universities took on the role of the parent. When *in loco parentis* ended in the late 1960s, both parents and campus officials were expected to not interfere in the lives of students. Parents are now returning to campus and expecting to be involved.

The changing roles of parents and the more intense and intentional alcohol and other drug prevention programs created by campus officials, in conjunction with the generational changes seen among students, could create the ideal setting to address a problem that has not changed for decades. Parents are more involved in the lives of their students; Millennials want parents involved, desire more consistent rules, and have healthier behaviors; and universities are creating lower-risk environments for students through more consistent policies and alcohol prevention programs. These factors alone might result in the changes that universities have sought in terms of achieving a healthier campus. However, university officials, including campus administrators and prevention professionals, must examine this combination of parental involvement and shifting student behaviors and expectations to take advantage of the situation. As the Millennial generation and their parents age, a new generation of parents and students will become part of the university environment. This new generation might not be as engaged or as interested in their health and well-being. University officials must therefore learn now what is most effective in terms of prevention and intervention programs to instill long-term solutions.

Statement of the Problem

Colleges and universities struggle with the problem of high-risk alcohol use among students. Institutions have implemented prevention, intervention and counseling programs with limited change. At the same time, university officials have searched for ways to engage parents in positive ways as they become more and more involved in their students' lives on campus. Although many parents believe that they do not have an influence on the behaviors of their students, research clearly demonstrates they do (Turrisi, Jaccard, Taki, Dunnam, & Grimes, 2001; Turrisi, Wiersma, & Hughes, 2000).

Research has shown that parental education works. Turrisi et al. (2001) found that providing parents with an extensive parent handbook with information on talking to children about alcohol resulted in lower alcohol use among their children after arriving on campus. While the literature supports the efficacy of providing prevention materials to parents in the pursuit of decreasing alcohol use among their students, there are limitations to the use of such materials. The costs associated with printing and mailing can be high. In addition, placement of information on a college or university website is limiting in the fact that not all parents and guardians have access to the Internet. Little research has been done on other methods of educating parents in ways that are accessible to parents and affordable to universities. In an effort to address these cost-related issues, campuses could provide educational sessions for parents during summer orientation prior to student matriculation.

Purpose of the Study

This study explored whether a session during summer orientation could impact whether or not parents have conversations about alcohol and other drugs with their incoming first-year students, resulting in less alcohol use among these students. The purpose of this study is to

examine whether a brief skills-building session with parents of incoming college students during freshman orientation impacts the quantity and frequency of student alcohol and other drug use during the first two weeks of matriculation within an institution of higher education. Through the use of an experimental design involving parents during freshman orientation, the results of this study can inform campus administrators of the impact specific parent programs have on student behaviors.

Research Questions

This investigation addressed the following research questions (RQ):

RQ1: Were parents more likely to have discussions about alcohol and other drugs with their students if they attended an intervention session during summer orientation?

RQ 2: Were there differences in first-year student alcohol use based on whether parents attended an intervention session during summer orientation?

RQ3: Were there differences in first-year student tobacco use based on whether parents attended an intervention session during summer orientation?

RQ4: Were there differences in first-year student marijuana use based on whether parents attended an intervention session during summer orientation?

RQ5: Were there differences in first-year student other drug use based on whether parents attended an intervention session during summer orientation?

Operational Definitions

Terminology used in this study needs to be defined to provide a clear and consistent understanding of this research. Definitions provided below offer this clarity and consistency.

Alcohol

Alcohol is defined as any drink containing ethyl alcohol or ethanol. This includes wine, beer, and spirits or liquor. The consumption of alcohol is legal only for individuals over the age of 21 years in all 50 states in the United States. The illegal consumption of alcohol by individuals under the age of 21 results in various penalties, depending on the state and local laws and campus policies.

Binge Drinker

A binge drinker is defined as a woman who drinks 4 or more drinks or a man who drinks 5 or more drinks in a row at least once in the previous two weeks (Wechsler, Lee, Kuo, & Lee, 2000b). Although this term is used within research for consistency, the preferred term among many alcohol and other drug prevention experts is high-risk drinking. This term is more flexible and takes into account that there are many factors that contribute to health, impairment and legal risk when an individual drinks.

Drink

One drink is defined as a 12 ounce beer, 4-5 ounce glass of wine or 1 ounce of 100 proof distilled spirits/liquor (CDC, 2005).

First-Year Student

First-year student is defined as a student enrolled in a college or university for the first time. This does not include students who transfer into an institution from another institution, but may include students who joint enroll in a college for credit while still in high school.

Frequent Binge Drinker

Wechsler et al. (2000b) define a frequent binge drinker as a person who has engaged in binge drinking 3 or more times in the last month. They note that this level of consumption brings with it a variety of negative outcomes for college students.

High-Risk Alcohol Use

High-risk alcohol use is any use of an alcoholic beverage that increases the risk of danger or harm (Daugherty & Leukefeld, 1998). Although the term binge drinking is used in the literature, the definition of binge drinking does not account for individual differences such as an individual's family history, tolerance to alcohol, and other factors. The term high-risk takes into account all of these factors.

Other Illegal Drug Use

Other illegal drug use is defined as the use of drugs that are illegal by United States laws. Illegal drug use also includes the misuse of prescription drugs, including using one's own prescriptions in a way not prescribed or using another individual's prescription drugs.

Orientation

Orientation is defined as a program offered to parents and students by colleges and universities prior to student matriculation. For the purposes of this study, these sessions are two days in length and involve sessions for students, for parents, and for students and parents jointly. These sessions are held throughout the summer. Orientation provides students with information on academic and extracurricular activities and the campus environment, and it enables students to connect with other incoming students. Orientation provides parents with campus information and what to expect from the university and the transition of the student into the campus environment.

Parent

Parent is defined broadly to include the adult with responsibility for the support (financial, emotional, etc.) of the college student. This is the person or persons who raise and nurture the child (Soukhanov, 1996). This definition recognizes the current diversity of family structures,

which can include other extended family members (e.g., aunts, uncles, grandparents, older siblings) or a guardian in a primary caretaking role.

Tobacco

Tobacco is defined as both smokeless tobacco products, such as chewing tobacco and snuff, and smoked tobacco, including cigarettes and cigars.

Significance

The results of this study can have a significant impact upon how colleges and universities engage parents in alcohol and other drug prevention efforts among first-year students. It offers additional means to provide alcohol and other drug prevention, leading to decreased high-risk behaviors among first-year students. This enables campus administrators to redirect resources from ineffective programs to other sources of the problem, including environmental strategies that target policies, laws and enforcement. In addition, these resources can be used to support counseling services for students with alcohol and other drug dependence. Finally, the results of this study will allow campuses to engage parents in a positive and productive way.

Limitations

There were several limitations to this study. First, the samples utilized during the orientation sessions were convenience samples. This was limiting because they might not be representative of the incoming first-year class. The sample collected during the fall was also a convenience sample. Although both samples were convenience samples, the demographics of the incoming class can be compared to the study sample to assess this limitation.

Second, not all parents attend orientation. Only those who attended orientation will be given the opportunity to participate. This might limit the inclusion of parents who cannot afford to attend orientation for financial reasons, including the cost to travel to the institution or having

to miss work to attend. In addition, parents might not have attended orientation because of the distance from the institution. Finally, those that attend orientation choose whether or not to participate in the study. This self selection could limit the study.

Third, no attempt was made to study the communication skills of the parents or the quality of communication between parents and students. This factor might be important in the ability of the parent to discuss issues with students. The study included a question on whether a conversation has already occurred with regards to alcohol and other drug use, but it did not ask for any information about those conversations.

Fourth, this study was limited in its generalizability. There was only one campus that was used in the study, which was a large, four-year, public institution in the southeastern United States. The students and their parents might differ significantly from those at other institutions, including racial demographics, average age of first-year students, socio-economic background, etc. Although there were comparable institutions to use for this study, no information was collected from these institutions due to limited resources.

The fifth limitation was that the data collected in the study were self reported. This included all information from the parents and the students. There was no direct measurement of alcohol and other drug use and no direct observation of conversations between parents and students. This could be limiting based on the fact that participants might report what was socially acceptable rather than actual behavior. Their perceptions of what is socially acceptable might also vary.

The sixth and final limitation of this study was that it was focused on traditional-aged college students. The institution that was studied has a large traditional-aged first-year population. It was these students who were studied. This was limiting in the fact that many

campuses have incoming students who are not traditional, 18-year-old, first-time, first-year students.

Chapter Summary

Alcohol and other drug use on college campuses is a major problem. First-year students are at particular risk. While this problem has been ongoing, changes in student behavior and outlook, in addition to changes in parent involvement on campus, are creating an opportunity to transform the issue. Although studies have shown that parents can be educated to talk to their students about alcohol and other drugs, this study will focus on utilizing orientation programs to engage parents in prevention efforts for first-year students. This study provided evidence about the extent to which such methods are efficacious, which enables campus officials to create positive changes on campus.

CHAPTER 2
REVIEW OF LITERATURE
Student Alcohol Use

Legal changes in the last century have transformed campus environments, resulting in increased opportunities for the misuse and abuse of alcohol among students. During this period, the perception and actual amount of student supervision shifted among parents and campus administrators. Wechsler, Seibring, Liu, & Ahl (2004) described these changes in supervision as a result of the demise of *in loco parentis* beginning after World War II and its complete disappearance in the late 1960s. The parental responsibility that universities took ended, leaving a void where there was once a transition period between extensive supervision at home and complete freedom when students became employed or got married. This historical period also saw changes in the minimum drinking age. It was not a simple increase or decrease, but a fluctuating period, decreasing at one point, only to increase again in the late 1970s and early 1980s (Wechsler et al., 2004). These years of shifting responsibility, in addition to the fluctuation in the drinking age laws, left university administrators with little stability in creating consistent policies and left students with an open invitation to misuse alcohol.

During more recent times, colleges, universities, and various levels of government have started the process of assessing the impact of these changes. Wechsler et al. (2004) noted that since the passage of the 1989 amendments to the federal Drug-Free Schools and Campuses Act, campuses have been required to have policies relating to the illegal use of alcohol and other drugs. In addition, the U.S Department of Education's HEC was funded in 1993 with a mission

“to support institutions of higher education in their efforts to combat illegal alcohol and other drug (AOD) use and its consequences, including violence, in American colleges and universities primarily through the use of prevention strategies that focus on environmental, educational, and information dissemination strategies” (HEC, 2006b). In the decade and a half since that time, there continue to be problems associated with high-risk alcohol use on campuses, including many highly publicized student deaths, focusing much attention on the problems associated with high-risk alcohol use (Davis & Debarros, 2006; Toppo, 2006). This period of time has also brought an increase in research on the issue of high-risk alcohol use. High-risk alcohol use and the problems associated with this level of use are still a major problem.

Level of Consumption

The American College Health Association (2006) found that 84.8% of college students have consumed alcohol in the last 30 days. This was assessed through a sample of 54,111 college students representing a variety of institutions in the United States. The prevalence of high-risk drinking on college campuses is also well documented by others. O’Malley and Johnston (2002) provided an overview of research conducted on student drinking. Their summary included recent data from the Harvard School of Public Health’s College Alcohol Study, the Core Institute’s Alcohol and Drug Use Survey, the Monitoring the Future Study, the National College Health Risk Behavior Survey, and the National Household Survey on Drug Abuse. Although these studies vary in terms of methodology and instrumentation, they consistently place national binge drinking rates among college students at over 40%. In an independent study, Jennison (2004) found that 22% of college students were frequent binge drinkers.

Although binge drinking is well documented in the literature, it is critical to note that the levels of high-risk alcohol use go well beyond this established point of consumption. White,

Kraus, and Swartzwelder (2006) noted that much of the literature does not address high-risk drinking levels beyond the binge drinking set points of 4 drinks for women and 5 drinks for men in one setting in the last two weeks. They found that among first semester freshmen, 1 in 5 men consumed 10 or more drinks in one sitting in the last two weeks while 1 in 10 women consumed 8 or more drinks in one sitting in the past two weeks. This demonstrated that many students were drinking twice the defined binge drinking rate.

It is not only the level of drinking that must be considered; trends must also be examined. In an examination of a period from 1993 to 2001, Wechsler et al. (2002) found that while there were increases in the number of abstainers on college campuses, there were also increases in binge drinking, which might indicate a polarization of drinking behaviors occurring on college campuses.

Drinking behaviors have not been found to be consistent across populations of students. O'Malley and Johnston (2002) noted consistent demographic differences among drinkers across the five studies. They found that alcohol use was greater among men than women, and white students drank more than any other racial/ethnic student group. Specially, they noted that Hispanic students drank less than white students; however, they drank more than African American students. Using National College Health Assessment data, Siebert, Wilke, Delva, Smith, & Howell (2003) found that African Americans scored lower on drinking measures and reported fewer negative outcomes than white students. It is not only that demographic factors predict alcohol use, but diversity on campus was also found to predict alcohol use. Wechsler & Kuo (2003) found that binge drinking rates among white, male and underage students were lower at institutions with more racially/ethnically diverse students, women, and older students.

Living arrangements have also been found to be related to drinking behaviors. Wechsler et al. (2000b) noted that students residing in fraternity and sorority houses drank the most, followed by students in residence halls. Students living with their parents and commuting to campus drank the least (Wechsler et al., 2002). This is important to note as many campuses now have first-year student live-on requirements.

Drinking behaviors among first-year students have also been the focus of recent research. Some of these studies indicated changes in drinking behaviors among first-year students, with an increase in drinking after arriving on campus (Baer, Kivlahan, & Marlatt, 1995; Harford & Muthén, 2001; Leeman & Wapner, 2001; Leibsohn, 1994; Lo & Globetti, 1995). Others noted that high school drinking behaviors were carried through to the first year of college (Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994). Leibsohn (1994) noted the frequency of alcohol use increases among first year students but not the number of times a student reports getting drunk. Others reported increases in drinking upon initial matriculation with a decrease over subsequent years (Turrisi, Padilla, & Wierma, 2000; Wechsler, Dowdall, Maenner, Gledhill-Hoyt, & Lee, 1998). Wechsler et al. (2000b) specifically found that 41% percent of the first-year students who did not binge drink in high school began binge drinking after arriving on campus. In addition, they found that 54% percent of first-year students engaged in binge drinking within the first week of college. Regardless of when increases or decreases are seen in drinking behaviors, the research demonstrates that college student drinking reaches a critical point during the first year. It is also important to note that this level of drinking reported on college campuses is not paralleled in the general population. Although some researchers found no differences between college student drinking and non-college student drinking of the same age group

(Lanza & Collins, 2006), others noted that the rate of drinking among college students during the first few years of college surpassed that of their peers not in college (Schulenberg et al., 2001).

Problems Associated with Alcohol Use

The problems associated with high-risk drinking are far-reaching on both an individual and institutional level. Wechsler et al. (2000b) noted that college students who engaged in binge drinking experienced more negative outcomes than non-binge drinkers and that frequent binge drinkers were as much as 21 times as likely to experience them. These problems included memory loss, falling behind academically, arguing with friends, engaging in unplanned sexual activity, failing to use protection when having sex, getting hurt or injured, damaging property, getting into trouble with campus or local police, requiring medical treatment of alcohol overdose, and driving after drinking alcohol (Hingson, Heeren, Zakocs, Kopstein, & Wechsler, 2002). Jennison (2004) found that 22% of college students were considered frequent binge drinkers, but accounted for 40% of the alcohol-related problems. The National Institute of Alcohol Abuse and Alcoholism (2002) reported that in the United States there are 500,000 unintentional injuries, 70,000 sexual assaults and 600,000 assaults annually among students between the ages of 18 and 24 years.

In describing the negative outcomes of college students' binge drinking, it is also important to examine the impact of alcohol on cognitive development. In animal studies, binge drinking had a greater negative impact on adolescent brains, including regions that correspond to the prefrontal cortex and parts of the limbic system, which in humans plays an important role in planning and goal-directed behaviors, stress responses, and impulse control, among others (Crews, Braun, Hoplight, Switzer, & Knapp, 2000). Numerous studies identified the negative impact that alcohol, and more specifically binge drinking, had on learning. This might begin

early in a student's career in college. Schulenberg et al. (2001) noted that binge drinking negatively impacts the transition to college. This manifests itself in the actual departure of the student from the institution. The NIAAA (2002) reported that, among all college students, over 200,000 drop out every year because of issues related to alcohol use. Students also self-reported behaviors that negatively impacted academic achievement. In a sample of 68,000 students from 133 colleges, 34.4% reported experiencing memory loss, 24.2% reported performing poorly on a test or other project, and 32.9% reported missing a class because of alcohol use (Core Institute, 2005). This research supports Jennison's (2004) findings that binge drinking in college has a negative impact on educational attainment.

Many of these examples are related to overall academic success, but there is also research on the direct impact that alcohol misuse and abuse have on cognition and learning. One of the key components of learning is the utilization of memory. In several studies, alcohol was shown to put traditional-aged college students at risk for alcohol-induced memory dysfunction (Acheson, Stein, Swartzwelder, 1998; White, Ghia, Leven, Swartzwelder, 2000). De Bellis et al. (2000) noted that the most severe alcohol-related neurological damage that occurred in adolescents was in areas of the brain responsible for learning and memory. As memory and learning play an important role in the success of our students, it is clear that alcohol can impact this negatively. In a study by Aertgeerts & Buntinx (2002), 62.5% of students with alcohol dependence failed in their first year, compared to 50% among students not reporting these drinking problems. Therefore, alcohol does not just impact students' ability to stay in college; it impacts their ability to function at full cognitive capacity.

Social development is a critical component of overall development of college students, which can also be impacted by alcohol. In a study of college students, women who were binge

drinkers had less effective social problem-solving skills (Dreer, Ronan, Ronan, Dush, Elliott, 2004). Wechsler et al. (2000b) also found that binge drinking was often coupled with educational difficulties, psychosocial problems, antisocial behaviors, and other issues. All of these areas are related to psychosocial development. It is therefore clear that alcohol impacts many aspects of students' lives

Campus Response to the Alcohol Issue

What Campuses are Doing

Colleges are responding to the problems associated with alcohol in a variety of ways. Most of these efforts focus on interpersonal and intrapersonal factors related to high-risk alcohol use (Wechsler, Kelley, Weitzman, San Giovanni, & Seibring, 2000a). Campuses are providing general education to the students by offering basic educational awareness of the problems associated with high-risk alcohol use, providing programs to change attitudes and beliefs about alcohol, and working to increase student intents to avoid high-risk drinking (DeJong & Langford, 2002). These efforts are typically done through awareness weeks, freshman orientation, campus speakers, and other special events. Other frequently used approaches include banning kegs from residence halls and Greek housing; limiting alcohol advertising on campus (Wechsler et al., 2000a); hiring counseling and treatment services; providing alcohol education targeted at first-year students, Greek students and athletes; designating alcohol-free residence halls; hiring staff to deal specifically with the issue; and restricting alcohol at athletic events (Wechsler et al., 2004).

These methods are used in various combinations, and in some cases, conflict with other institutional behaviors. Wechsler et al. (2004) found some of these contradictions. They noted that campuses that focused most of their resources on prevention education also restricted access

to alcohol the least. That is, campuses that gave students the most access to alcohol through fewer alcohol policies on campus also provided more resources for prevention education. In a sense, these actions created mixed messages on expectations. Only a small number of schools, 34%, banned alcohol altogether.

Results of Campus Efforts

Although most colleges are putting time, energy and resources into this issue, they are getting few results. Wechsler et al. (2002) noted that there were no changes in the college binge drinking rate in their studies from 1993 to 2001. Glassman (2002) discussed several of the reasons that colleges have not been more successful in dealing with the problems associated with alcohol abuse and misuse. He noted that many programs are under-funded and understaffed. More importantly, he noted that many of the full time prevention staff members are not trained in policy development and coalition building, which have been shown to have positive results. Schroeder (2002) stated, “the challenge of addressing binge drinking is not only about connecting the fragmented pieces of the student experience, it is also about connecting us all through the creation of purposeful, value-centered, and intellectually powerful campus communities” (p. 9).

Best Practices

One of the major outcomes of the recent focus on alcohol-related problems on college campuses is a foundation of research on what works and what does not work in terms of alcohol prevention. The Task Force of the National Advisory Council for the NIAAA made several recommendations to combat college drinking in its 2002 study, *A Call to Action: Changing the Culture of Drinking at U.S. Colleges* (NIAAA, 2002). These recommended strategies focused on providing evidence of effectiveness among college students and evidence of success with general

populations that could be applied to college environments. Additional recommended strategies include providing evidence of logical and theoretical promise.

The first recommendation is to provide evidence of effectiveness of programs among college students that are limited to individual prevention strategies but have not been tested campus-wide. These include combining cognitive-behavioral skills training with norms clarification and motivational enhancement interventions; offering brief motivational enhancement interventions; and challenging alcohol expectancies. These strategies are solely focused on individual beliefs, misperceptions, and motivations.

The second recommendation is to establish evidence of successful strategies in the general population that could be applied to college environments, focusing on environmental factors that encourage or discourage high-risk use. One strategy focuses on the enforcement of alcohol policies and laws by both campus administrators and community police, including those related to underage drinking and drinking and driving. Other strategies include reducing alcohol license density, increasing prices and excise taxes on alcoholic beverages, providing responsible beverage service training, and creating campus/community coalitions. These strategies have shown success on various levels, including parallel reductions in alcohol use and problems, as well as the creation of community among stakeholders.

The third recommendation is to provide evidence of logical and theoretical promise among strategies that may require more comprehensive evaluation. Specifically, it suggests that strategies that intuitively make sense or that have theoretical support should be considered and tested thoroughly to ensure their efficacy. Strategies include eliminating keg parties on campus where underage drinking is prevalent; establishing alcohol-free dormitories; employing older, salaried resident assistants or hiring adults to fulfill that role; further controlling or eliminating

alcohol at sports events and prohibiting tailgating parties that model heavy alcohol use; refusing sponsorship gifts from the alcohol industry to avoid any perception that underage drinking is acceptable; and banning alcohol on campus, including at faculty and alumni/ae events. Other strategies include reducing mixed messages about alcohol use on campus; consistently enforcing policies and disciplinary actions; utilizing social marketing to change student perceptions of alcohol use on campus; creating safe ride programs; regulating alcohol specials; and educating students and parents about alcohol policies prior to matriculation.

The fourth recommendation, evidence of ineffectiveness, accepts the idea that it is difficult to prove what is effective in prevention. Instead, this recommendation suggests that programs and services that have consistently been shown not to work should be eliminated to free up limited resources. One strategy noted not to work alone is providing informational, knowledge-based, or values clarification about alcohol to students. In addition, the report notes that providing students with feedback on blood alcohol concentration can actually encourage high-risk alcohol use.

The NIAAA (2002) report finally presents the research on effective prevention in terms of impact on individuals, student populations, and communities in what it refers to as the “3 in 1 Framework” (p. 25). Only two strategies impact both individuals and student populations simultaneously and are noted as promising practices. These are increasing awareness of personal liability and educating students and parents on alcohol policies and penalties. Three other strategies were noted as effective on individual students, including combining cognitive-behavioral skills training with norms clarification and motivational enhancement intervention; offering brief motivational enhancement interventions in student health centers and emergency rooms; and challenging alcohol expectancies.

Campuses can now utilize the growing research on what works and what does not work in terms of alcohol prevention. However, they must now assess resources for the implementation of such strategies. Through this process, the campuses must have a solid understanding of the changing behaviors and beliefs of each new group of students matriculating. In addition, administrators must consider nontraditional resources in the prevention of high-risk alcohol use, including the utilization of parents who are already involved with their students on campus. To begin this process, student expectations and beliefs should be examined.

Changing Student Behaviors and Beliefs

The health-related beliefs and behaviors have continued to change among college students over the last few decades. Whether the focus is on alcohol use or sexual health, students have steadily shown increases in improving health-related behaviors and beliefs. In a study by Netting and Burnett (2004) on sexual behaviors from 1980 to 2000, they found that the use of condoms increased and the number of sexually experienced high school students decreased. The CDC (2004) also found decreases in alcohol, tobacco, and marijuana use among 9th to 12th graders from 1991 to 2003. The behavioral changes seen among high school students are now being seen among college students. Wechsler et al. (2000b) noted that although binge drinking rates are increasing, the percentage of abstainers is also increasing. In their study of drinking trends from 1993 to 1999, Wechsler et al. (2000b) found that the percentage of abstainers increased from 15% to 19%. In addition, high-risk drinking among Greek students has also decreased. Caron, Moskey and Hovey (2004) found that reported high school drinking rates among current Greek students decreased from 77.9% in 1994 to 68.6% in 2000, although there was no difference in post matriculation drinking among the same students. Wechsler et al. (2002) noted that binge drinking rates among Greek members living in Greek housing have decreased as

a result of targeted prevention; however, rates among the general Greek student population are remaining constant. Even though there is not a comprehensive change in high-risk alcohol use, some behaviors are changing.

Generational Differences

There are many factors that impact the behaviors of students. Today, however, much of the discussion around behaviors, outlooks and attitudes regarding college students involves generational differences. The students entering college for the first time today have been identified as the “Millennial” generation (Howe & Strauss, 2000). While some pinpoint the period of the Millennial generation as those born between 1980 and 2000 (Howe & Strauss, 2000), others demarcate the generation as being born between 1981 and 1999 (Lancaster & Stillman, 2002). Regardless of a small variation in these years, Millennials are now entering colleges and universities with different attitudes, outlooks and behaviors.

Millennials are described by Howe & Strauss (2000) as gravitating toward group activity, identifying closely with their parents’ values, feeling very close to their parents, focusing on grades and performance, and participating with many extracurricular activities. Millennials prefer structure to ambiguity, resulting from having childhoods with busy schedules of organized activities, in addition to unprecedented supervision and protection. Martin and Tulgan (2001) noted that these students were brought up with many more rules; therefore, they expect rules to be communicated clearly and enforced. Strauss and Howe (2003) described how Millennial college students want secure and regulated environments. This is very different from Generation X students who questioned everything from government to corporate America and did not have faith in the permanence of institutions and relationships (Lancaster & Stillman, 2002). This set of attitudes and behaviors held among Millennials that embraces a more connected environment

and relationships is providing an opening for closer parent-child relationships that extend into the college years.

Roles of Parents of College Students

Changing Parent Roles

Parents are playing a different role in the lives of today's college students. Where university officials once played the role of parent on campus, the demise of *in loco parentis* ended this responsibility. Forty years have passed since this change, and the parental role has returned to campus in the form of the students' actual parents. This recent shift has created complex new dynamics between students, parents and universities through what some see as over-involvement.

Much has been written in the popular press about the involvement of what are sometimes referred to as "helicopter parents." These parents are following patterns established early on in their children's lives. Atkinson (2004) noted that these are the parents who, throughout their students' high school years, were checking grades online and calling to complain about grades on tests. These parents are continuing this level of involvement when their students begin college. Campus administrators are relaying this cultural shift they are seeing in regard to parent involvement in publications ranging from the *Wall Street Journal* (Shellenbarger, 2005) to the *Chronicle of Higher Education* (Jacobson, 2003). In a 2004 article in the *Chronicle of Higher Education*, Johnson gives accounts of administrators who are receiving more and more phone calls from parents who are demanding to be involved in the lives of their children on campus. However, it is important to note that the parents are not alone; the Millennial students may be the ones asking for this parent involvement (Good parent relations increase student success, 2005).

It is clear that there was an initial shock felt by universities when parents began getting very involved on campus. However, as the shock subsides, institutions are beginning to embrace parents. Gerdes (2004) argued for strong parent/university connections and collaboration and Daniel, Evens, Scott, & Scott (2001) emphasized the creation of stronger relationships between families and institutions that “foster the successful development and education of the student” (p. 4). Universities are heeding such suggestions and developing new ways to create positive relationships. Included in these approaches are parent relations offices, parent committees, parent associations, and parent orientations (Hover, 2004).

Parental Influence on Student Drinking

Research shows that parents are getting more involved, students want them involved, and universities are embracing this new paradigm. This provides many opportunities as research has shown that parents have influence on student drinking behaviors. The factors that influence alcohol use include the parents’ own attitudes and behaviors related to alcohol, perceived and actual consequences of the use of alcohol, and parent-student relationships. Wood (2004) notes that parent behavior and attitudes toward illegal alcohol use can positively or negatively influence students even into late adolescence. One way students are influenced is through parent modeling of behaviors. Kandel and Andrews (1987) demonstrated that even the child’s perceptions of parental drinking can influence her/his own drinking. Zhang, Welte, & Wieczorek (1997) found that parental attitudes are a more important influence than their behaviors, although both influence a child’s use of alcohol. It is not only the parent attitudes and behaviors but also parental acceptance of drinking with their children that impact that child’s attitudes towards alcohol. Ichiyama and Kruse (1998) showed that first-year college students who are occasional

or frequent binge drinkers report more instances of drinking in family situations than non-binge drinkers.

Perceived consequences for getting caught drinking by parents also impact student behavior directly. Foley, Altman, Durant, & Wolfson (2004) found that adult approval of alcohol use is highly correlated with adolescent drinking behavior. They report that as the perceived consequences increase among 16-20 year olds, the use of alcohol decreases. In a study by Boyle & Boekeloo (2006), first-year college students with more perceived parental approval for their drinking reported more problems associated with drinking.

Finally, Haemmerlie, Steen, & Benedicto (1994) found that parent-adolescent relationships can play a role in student adjustment to college and levels of alcohol use. Communication is one factor that is critical in the parent-student relationship and that can impact alcohol use. When examining communication patterns between adolescents in high school and their parents, Kafka and London (1991) showed that the families who had better and more open communication used alcohol and other drugs less than those families with inferior communication. Brack, Gay, & Matheny (1993) found that students with strong relationships with their parents had stronger coping resources.

Parents as Partners in Prevention

The result of a 3-year analysis of drinking on college campuses by a special task force of the National Advisory Council on Alcohol Abuse for the National Institute of Alcohol Abuse and Alcoholism was a report with specific recommendations for parents of college students. The NIAAA (2002) clearly stated specific actions parents should be taking. These recommendations included staying involved and knowing what experiences and activities students are engaging in on campus, especially in the first six weeks of enrollment. It is also recommended that parents

educate themselves on campus policies related to alcohol and other drugs and on signs of possible alcohol problems. Finally, it suggested that parents clearly communicate how alcohol can lead to academic and personal problems.

Communication is a critical piece of the prevention process. Turrisi, Jaccard, Taki, Dunnam, & Grimes (2001) found fewer negative drinking outcomes among students whose parents utilized materials that educated them about alcohol use among college students. In their study, parents were asked to read a parent handbook and implement the intervention strategies with their students prior to the fall semester of the first year in college. The handbook was broken up into sections that included an overview of alcohol problems on campuses and the impact of binge drinking; specific strategies such as communication tools and techniques to be used with students; methods on how to teach students assertiveness and how to deal with peer pressure associated with alcohol use; and a section on basic physiological, psychological and psychomotor effects of alcohol. Parents' use of the handbook, therefore, has a positive impact on student outcomes in terms of alcohol use by college students.

The White House Office of National Drug Control Policy's (2006) National Youth Anti-Drug Media Campaign also provided very clear steps that parents can take to reduce high-risk alcohol and other drug use. First, it recommended working with a spouse or partner before talking to their child to ensure consistency and to make a plan for the discussion. Second, it stated that factual information should be shared. Third, it emphasized not only discussing the issues with the child, but also listening carefully to what he/she has to say. Fourth, the campaign suggested setting clear expectations and being consistent with them. Finally, it emphasized that parents must understand that this type of conversation is not always smooth and that more

conversations will have to take place in the future. These examples provide an overview of the resources that are available for parents and the impact that they have on student behaviors.

Chapter Summary

Drinking among college students creates barriers to success academically and socially. The level of drinking among first-year students is especially concerning. However, research is suggesting that when several prevention methods are utilized together, the prevention of high-risk behaviors and negative outcomes can become more effective. The use of evidence-based methods in conjunction with increases in parental involvement and changes in student attitudes and behaviors might create the ideal situation to prevent high-risk alcohol use. Vicary & Karshin (2002) stated, "Supply side initiatives have not succeeded, nor should they bear the only burden of prevention. The families and communities from which the students come to college also share the responsibility when many of their youth come to college with existing alcohol abuse behaviors and expectations" (p. 323). Together, institutions of higher education, parents and students can prevent negative alcohol-related outcomes on campus.

CHAPTER 3

METHODS

This chapter describes the participants selected for this study, illustrates the experimental and control programs provided for participants, explains the three instruments utilized, outlines the research design and data collection processes, and presents methods of data analysis.

Participants

Student Participation

The participants in this study were first-year, first-time students and their parents at a large, public institution in the Southeast. These students had the opportunity to take part in two separate surveys. The first survey was distributed during the freshman orientation program in the summer prior to matriculation. The students were also surveyed three weeks after the first day of classes of the fall semester. All students 18 years of age and older were invited to take part in the research. There were approximately 5,000 students available for participation as they all attended the orientation session where the survey was distributed. There were 1,945 students who completed the summer survey and 1,387 who completed the post matriculation survey.

Parental Participation

Parents of the first-year, first-time students attending freshman orientation were also invited to participate in this research. Parents were surveyed prior to sessions providing information on the university's health services and alcohol and other drug program. The parents also took part in one of two programs assigned to them by the researcher. These programs alternated from one session to the next over 16 orientation sessions from June 1 through August

3. This provided 8 experimental group sessions and 8 control group sessions. There were 2,118 parents who completed the summer survey.

Control and Experimental Programs

Control Group

Parents were provided with an alcohol education and prevention program during summer orientation. This program has historically been offered each summer to parents. This program was facilitated by one of two health educators or the researcher and covered several topics using a lecture-style PowerPoint presentation (Appendix A). The topics covered in these sessions included general facts about alcohol and the impact it has on students academically, physically, and socially. It also outlined programs and services provided on campus. Finally, it suggested that parents should talk to their students about alcohol and other drugs prior to moving to campus. This presentation was offered in 8 of the 16 orientation sessions over the summer and used as the control group for this study. Every other orientation session starting with the second session was part of the control sample.

Experimental Group

The other 8 parent sessions during summer orientation were facilitated by one of two health educators and the researcher in this study and comprised the experimental group. Each facilitator provided information from a script (Appendix B) and provided parents with a fact sheet (Appendix C) on campus alcohol and other drug issues, summarizing what the control group received. After a brief overview the facilitators introduced a conversational method that parents could use to talk to their students about alcohol and other drug use. After describing the method, the parents were given a worksheet (Appendix D) to plan the conversation they would have with their students. This sheet included space for parents to fill in the following

information: a date for the conversation to take place, specific facts to share with students, a list of expectations in terms of alcohol and other drugs, possible negative feedback that might be encountered during the conversation, points on dealing with negative feedback, dates for follow-up conversations post-matriculation, and names, phone numbers and e-mails of other parents in the session who could be utilized as a support system. Parents were encouraged to talk with other parents about their plans.

Data Collection

Student Participants

Students were handed a survey with an implied consent letter attached as they entered the University Health Center's session during orientation. Each student was given the opportunity to fill out the survey while she/he waited for the session to begin. During the session the University Health Center's Communication Director explained the research. At the end of the session the surveys were collected as the students were leaving the room.

Students were surveyed a second time three weeks after the first day of classes. The university's Office of Admissions provided the Office of Student Affairs Assessment with the names, Social Security numbers, and corresponding orientation dates of all incoming, first-year students. The Office of Student Affairs Assessment utilized this information to retrieve the students' university e-mail addresses. An invitation message was sent to these students on September 4, 2006, and a reminder was sent on September 11, 2006. Students connected to the online survey via a link within the message. Students who chose to participate were provided with an online consent form which functioned as informed consent if the student continued from the form to the survey. The surveys were pre-coded as experimental or control based on whether the students' parents attended an experimental or control session during orientation. They were

also coded on the orientation session which the student attended. An incentive was offered. Each student who completed the survey was placed in a drawing to win a \$100 or \$50 gift certificate from the University Bookstore. Students who agreed to participate in the online survey had the opportunity to sign up for the drawing. If the student chose to participate, he/she was asked to submit their email address after submitting the survey. Their survey answers were separated from their contact information.

Parental Participants

Parents entering the first afternoon session of orientation were given a survey and asked to fill it out while they waited for the session to begin. During the University Health Center session, the University Health Center staff explained the research and parents were thanked for their participation. As the parents left the session, the surveys were collected. Any survey denoting a student's age of 17 years or younger at the time of the survey was destroyed to better ensure adequate matching of parent and student surveys because students under the age of 18 were not allowed to participate in the study.

Instrumentation

Three instruments were used for this data collection: Parent Alcohol, Tobacco, and Other Drug Survey (Shutt, 2006a) (Appendix E), Student Alcohol, Tobacco and Other Drug Survey I (Shutt, 2006b) (Appendix F), and Student Alcohol, Tobacco and Other Drug Survey II (Shutt, 2006c) (Appendix G). Student Alcohol, Tobacco and Other Drug Surveys I and II contained items taken directly from the Core Alcohol and Drug Survey (CADS) with permission. Items used from this survey were used verbatim with the identical ranking schemes of the original instrument. The reliability and validity of this instrument were tested repeatedly in national assessments. The content validity and reliability measures for the Core Alcohol and Drug Survey

were tested during the initial development of the instrument and are considered adequate (Presley, Meilman, & Lyerla, 1993). The questions from the CADS utilized on the Parent Alcohol, Tobacco, and Other Drug Survey were not verbatim as these questions asked about the perception of student alcohol and drug use. However, it was necessary to ask the questions to match the perceptions of use with the actual student use.

Parent Alcohol, Tobacco, and Other Drug Survey

This survey included 14 items. The questions focused on the parents' perceptions of their student's alcohol, tobacco, marijuana and other illegal drug use in the last year and the perceptions parents had of their student's intent to use alcohol during the first year on campus. In addition, questions were asked about expectations, plans the parents had to discuss issues with their student, and demographic questions. Four questions asked about their student's use of alcohol, tobacco, marijuana and other illegal drugs in the last year, with possible responses of "did not use," "once a year," "6 times a year," "once a month," "twice a month," "once a week," "3 times a week," "5 times a week" and "every day."

Two questions asked about the parental perceptions of the intent of the student to drink during the first year on campus. The first of these questions asked about the number of times the student planned to drink during the year, with possible responses of "I do not plan to drink," "once a year," "6 times a year," "once a month," "twice a month," "once a week," "3 times a week," "5 times a week" and "every day." The second of these questions asked the average number of drinks the student intended to drink on each drinking occasion. This was an open-ended question with the option of checking a box noting "he/she does not plan to drink."

Two questions asked about expectations of the students with regard to alcohol use during the first year on campus. One question asked what the expectations were with regard to drinking

frequency. Possible responses included: “I expect my student not to drink,” “it is okay for my student to drink once during the year,” “it is okay for my student to drink 6 times during the year,” “it is okay for my student to drink once a month,” “it is okay for my student to drink twice a month,” “it is okay for my student to drink once a week,” “it is okay for my student to drink 3 times a week,” “it is okay for my student to drink 5 times a week,” and “it is okay for my student to drink every day.” The other question asked what expectation the parent had in regards to the maximum number of drinks the student should consume on any one occasion during the student’s first year on campus. Participants could respond by entering a specific number of drinks or checking the box labeled, “I expect my student not to drink.”

Two questions asked for information regarding conversations that parents had with their students. One question asked if the parent had had a conversation with the student and the other question asked if the parent planned on having a conversation with the student regarding parental expectations on alcohol, tobacco and other drug use. Participants could select “yes” or “no” for these questions.

Three questions focused on demographics, including sex, ethnicity and age of the student. Responses for the question on sex included “male” or “female.” Responses for the ethnic origin of the student included “American Indian/Alaskan Native,” “Asian/Pacific Islander,” “Black (non-Hispanic),” “Hispanic/Latino/a,” “White (non-Hispanic),” “Multiracial,” “Biracial,” and “other.” The question on the age of the student was open-ended.

Finally, the last item included three questions: Day of the month your student was born, coded as 00-31; five digits of your student’s home zip code, coded 00000-99999; and first letter of your student’s middle name, coded 01-26. If the student had more than one middle name, the parent was instructed to use the first letter of the first name. If the student did not have a middle

name, the parent was instructed to leave the answer blank. It was then coded 00. The instrument was also coded by orientation date 01-16. All of this final information was used to match the parent surveys with the student surveys with a resulting string of 11 numbers.

Student Alcohol, Tobacco and Other Drug Survey I

The survey consisted of 16 items, including demographic questions. The questions on the survey focused on students' past substance use (alcohol, tobacco, marijuana and other illegal drug use), students' intent to use alcohol during the first year on campus, perceptions of parental expectations of alcohol use, intent to join a Greek letter organization on campus and demographic information.

There were seven questions regarding past substance use. Four questions asked about use of alcohol, tobacco, marijuana and other illegal drugs in the last year, with possible responses of "did not use," "once a year," "6 times a year," "once a month," "twice a month," "once a week," "3 times a week," "5 times a week" and "every day."¹ Two questions asked the students to reflect on the last time they consumed alcohol, including the number of days they drank in the last two weeks and the number of drinks consumed during the last drinking occasion. Both questions were open-ended. Finally, one question asked about the age at which the student first consumed alcohol.

Three question focused on behavioral intent during the first year on campus. One question asked how often the student planned to drink in the first year. Responses included: "I do not plan to drink," "once a year," "6 times a year," "once a month," "twice a month," "once a week," "3 times a week," "5 times a week" and "every day." Another question asked how many drinks the students planned to drink per occasion. The question was open-ended with a box

¹ These items were taken directly from the Core survey, and the ranking scheme is identical to the Core survey.

stating, "I do not plan to drink." Finally, a question asked whether a student intended to join a Greek letter organization. Responses included "yes," "no" and "do not know."

Three questions focused on the perception of parent expectations and information regarding parent/student conversations about alcohol. One question asked what the students' perceptions of their parents' expectation of the frequency of alcohol use during the first year on campus. Responses included: "My parents expect me not to drink," "it is okay for me to drink once during the year," "it is okay for me to drink 6 times during the year," "it is okay for me to drink once a month," "it is okay for me to drink twice a month," "it is okay for me to drink once a week," "it is okay for me to drink 3 times a week," "it is okay for me to drink 5 times a week," and "it is okay for me to drink every day." Students were also asked their perceptions of parental expectation of the quantity of alcohol use during the first year on campus. The response was open-ended with an additional box that could be checked stating, "my parents expect me not to drink." Finally, there was a question that asked whether their parents had had a conversation with the student about alcohol use. Responses included "yes," "no" and "do not know."

Two questions focused on demographics, including sex and ethnicity. Responses for the question on sex included "male" or "female." Responses for the ethnic origin of the student included "American Indian/Alaskan Native," "Asian/Pacific Islander," "Black (non-Hispanic)," "Hispanic/Latino/a," "White (non-Hispanic)," "Multiracial," "Biracial," and "other."

Finally, the last item included three questions: Day of the month the student was born, coded 00-31; the five digits of student's home zip code, coded 00000-99999; and first letter of the student's middle name, coded 01-26. If the student had more than one middle name, the student was instructed to use the first letter of the first name. If the student did not have a middle name, the she/he was instructed to leave the answer blank. It was then coded 00. The instrument

was also coded by orientation date, coded 01-16. All of this final information was used to match the student surveys with the parent survey with a resulting string of 11 numbers.

Student Alcohol, Tobacco and Other Drug Survey II

The survey consisted of eleven items, including questions on substance use over the last two weeks, perceived parental expectations, participation in Greek recruitment, and demographic information. Five questions focused on substance use over the last two weeks. Four of these questions asked the number of days the student consumed alcohol, marijuana, tobacco, and other illegal drugs over the last two weeks. The fifth question asked about the number of drinks consumed the last time alcohol was consumed. All five questions were open-ended.

Three questions focused on the perception of parent expectations and information regarding parent/student conversations about alcohol. One question asked what the students' perceptions were in regards to their parents' expectation of the frequency of alcohol use during the first year on campus. Responses included: "My parents expect me not to drink," "it is okay for me to drink once during the year," "it is okay for me to drink 6 times during the year," "it is okay for me to drink once a month," "it is okay for me to drink twice a month," "it is okay for me to drink once a week," "it is okay for me to drink 3 times a week," "it is okay for me to drink 5 times a week," and "it is okay for me to drink every day." Another question asked the students' perceptions of parental expectations of the quantity of alcohol use during the first year on campus. The response was open-ended with a box that could be checked stating, "my parents expect me not to drink." Finally, there was a question that asked whether the parents had had a conversation with the student about alcohol use prior to moving to campus. Responses included yes, no, and do not know.

One question asked about the student's participation in the recruitment process on campus for Greek letter organizations. Responses to this question included "yes" and "no."

Two questions focused on demographics, including sex and ethnicity. Responses for the question on sex included "male" or "female." Responses for the ethnic origin of the student included "American Indian/Alaskan Native," "Asian/Pacific Islander," "Black (non-Hispanic)," "Hispanic/Latino/a," "White (non-Hispanic)," "Multiracial," "Biracial," and "other."

Finally, the last item included three questions: Day of the month the student was born, coded 00-31; the five digits of the student's home zip code, coded 00000-99999; and first letter of the student's middle name, coded 01-26. If the student had more than one middle name, the student was instructed to use the first letter of the first name. If the student did not have a middle name, the she/he was instructed to leave the answer blank. It was then coded 00. The instrument was also coded by orientation date, coded 01-16. The orientation date was coded on the survey for the students. All of this final information was used to match the student surveys with the parent surveys with a resulting string of 11 numbers.

Research Design

This study examined differences between the alcohol and other drug use of first-year students based on whether or not their parents attended an experimental intervention session during summer orientation. It also examined whether or not parents were more or less likely to have a discussion about alcohol and other drug use if they received this experimental session. In addition, this study examined whether the proposed model (Figure 1) explains the relationship between parental participation in an orientation program and first-year student alcohol use post-matriculation. The study provided data to predict which variables impact student alcohol use. In the model that was tested, there were seventeen independent variables. There were six variables

related to past behavior, two demographic variables, two variables related to student perceptions of parental expectations, two variables that described student intent to use alcohol, one variable on the intent to join a Greek organization, one variable on the age of first consumption of alcohol, two variables on parental expectations, and one variable relating to parents being part of the experimental or control group.

Data Analysis Techniques

The data were separated into four different groups for analysis. The groups included parent, student-summer, student-fall, and parent/student-summer/student-fall match. Frequencies were analyzed for each group using the Statistical Package for the Social Sciences (SPSS) 13.0. In addition, differences based on control and experimental groups were tested using t-test, ANOVA, and nonparametric procedures in SPSS 13.0.

The parent/student-summer/student-fall match data were analyzed using standard multiple regression techniques and correlation analysis. In order to use this method, a minimum sample size using this technique followed the general guideline of $N > 50 + 8m$, where m is the number of independent variables (Tabachnick & Fidell, 2001). In this case, the number of independent variables in the model is seventeen; therefore, 186 matched surveys were required. This type of statistical regression was considered model building, rather than model testing (Tabachnick & Fidell, 2001), which was appropriate for this research. The use of this exploratory technique allowed for variable elimination, which provided better evidence for future research.

Standard multiple regression was a more powerful statistical technique than other methods that could have been employed using the collected data. There have been controversies on the use of ordinal and interval data in standard multiple regression as used in the instruments in this study. However, Pedhazur & Schmelkin (1991) noted that in sociobehavioral research,

“most of the measures used are not limited to signifying ‘more than,’ or ‘less than,’ as an ordinal scale is, but also signify degrees of differences, although these may not be expressible in equal interval units” (p. 28).

Chapter Summary

This chapter provided a detailed overview of the methods that were used in this research. This included an overview of the student and parent participants and a description of the experimental and control sessions. In addition, a thorough description of the instrumentation, data collection methods and data analysis were provided. Finally, the research model that provided the answers to the research questions was introduced.

CHAPTER 4

RESULTS

All parents and students who attended one of the sixteen first-year student orientation sessions during the summer of 2006 were given the opportunity to participate in this study. In addition, parents participated in an experimental or control session assigned by the researcher. Finally, all first-year students were invited to participate in an online survey conducted during the third week after the beginning of the fall semester.

The results were examined several ways. First, frequencies were examined to provide general information about the participants, their perceptions and their behaviors. Also, the surveys were matched so that parent surveys could be examined with student surveys from both the summer and the fall. Correlation and regression analyses were also conducted.

Parent Summer Survey Results

All Parent Summer Survey (APSS)

There were 2,118 parents who completed the survey during first-year student orientation sessions. This number does not include surveys with the same matching code. Duplicate surveys with identical matching codes were eliminated randomly by the researcher. One reason for the duplication was that more than one parent might have filled out the survey. Because the parental perceptions and expectations were different in some cases, the duplicates were randomly removed.

APSS parent perceptions of student use. Overall, most parents' perceptions were that their students had not used alcohol and other drugs in the last year. The percentage of parents who perceived that their students had not used included 92.0% (N=1,929) for tobacco, 52.3% (N=1,082) for alcohol, 94.8% (N=1,979) for marijuana, and 99.4% (N=2080) for other illegal drugs. The parents also gave their perceptions of how much and how often their students would consume alcohol in college. When asked how much their students planned to drink on each occasion, 58.4% (N=1,177) replied that their students did not plan to drink, while 13.5% (N=272) replied that their students would drink three or more drinks. When asked how often their students planned to drink, 58.0% (N=1,196) responded never, while 18.8% (N=388) reported once a week or more. Table 1 shows that the parent perception of student use and parental beliefs about student intent to drink at UGA are low. This table includes the means of the entire sample as well as the experimental and control groups. The means of the first five variables in the table represent a scale of 1-9, 1 representing did not use and 9 representing used every day, and are described further in the table. In addition, the table shows the differences in alcohol and other drug use means when comparing the entire parent sample and only those parents who perceive some use.

Table 1

Parent Perceptions of Student Alcohol, Tobacco and Other Drug Use and Plan to Use

Perception	All Parents			Parents Who Perceive Any Student Use		
	N	M	SD	N	M	SD
Student Tobacco Use in Last Year*						
Total	2,097	1.25	1.044	168	4.11	2.168
Experimental	1,105	1.23	0.973	88	3.84	2.122
Control	992	1.28	1.117	80	4.41	2.191
Student Alcohol Use in Last Year*						
Total	2067	2.18	1.587	985	3.48	1.438
Experimental	1,094	2.22	1.581	546	3.44	1.426
Control	973	2.14	1.595	439	3.54	1.452
Student Marijuana Use in Last Year*						
Total	2,087	1.10	0.532	108	2.92	1.415
Experimental	1,102	1.09	0.490	51	2.86	1.386
Control	985	1.11	0.575	57	2.96	1.451
Student Other Illegal Drug Use in Last Year *						
Total	2,093	1.01	0.177	13	2.85	1.345
Experimental	1,104	1.00	0.043	2	2.00	0.000
Control	989	1.02	0.254	11	3.00	1.414

Table 1 (continued)

Parent Perceptions of Student Alcohol, Tobacco and Other Drug Use and Plan to Use

Perception	All Parents			Parents Who Perceive Some Student Use		
	N	M	SD	N	M	SD
How Often Student Plans to Drink at UGA*						
Total	2,061	2.65	2.134	865	4.93	1.373
Experimental	1,090	2.72	2.163	472	4.97	1.363
Control	971	2.57	2.100	393	4.88	1.384
Average Number of Drinks Student Plans to Drink/Occasion**						
Total	2,014	0.95	1.367	837	2.30	1.192
Experimental	1,069	0.99	1.363	456	2.31	1.138
Control	945	0.92	1.372	381	2.28	1.256

Note.

*The measures for parent perception of student tobacco, alcohol, marijuana, other illegal drug use, as well as perception of how often the student plans to drink, included the following responses:

1=Did not use

6=Used once a week

2=Used once a year

7=Used 3 times a week

3=Used 6 times a year

8=Used 5 times a week

4=Used once a month

9=Used every day.

5=Used twice a month

**The measures for parent perception of the number of drinks students plan to drink per occasion represent a continuous scale.

APSS parent expectations. Parents were also asked about their expectations regarding the quantity and frequency of alcohol use. When asked how much they expected their students to drink per occasion, 63.5% (N=1,302) responded zero, while 13.1% (N=268) responded that they expected their students to drink three or more drinks per occasion. When asked how often they expected their students to drink, 74.8% (N=1,502) expected them never to drink, while 9.1% (N=182) expected them to drink once a week or more.

The parents were also asked if they had had a conversation about their expectations of their students concerning alcohol and other drugs and if they planned on having a conversation with their students. The majority of parents responded positively to both questions. Only 14.7% (N=306) had not discussed their expectations, while 2.5% (N=49) responded that they did not plan on having a conversation about their expectations with the students.

APSS demographics. The parents also reported the gender, age, and ethnic origin of their students. These results included 62.5% (N=1,311) female, 37.5% (N=786) male, 0.8% (N=17) American Indian/Alaskan Native, 3.3% (N=69) Asian/Pacific Islander, 6.0% (N=125) Black, 2.0% (N=41) Hispanic/Latino/a, 84.9% (N=1765) White, 1.3% (N=27) Multiracial, 1.1% (N=23) Biracial, 0.5% (N=11) Other, 96.5% (N=1,985) 18 years of age, 3.5% (N=72) 19 years of age, and 0.0% (N=1) 20 years of age.

Parent Summer Experimental Group(PSEG)

Of the 2118 parents who completed the survey during first-year student orientation sessions, 52.6% (N=1,115) were in the experimental group. Most parents' perceptions in the experimental group were consistent with the total parent sample related to the tested variables.

The percentage of parents in the experimental group who perceived that their students had not used included 92.0% (N=1,017) for tobacco, 50.1% (N=548) for alcohol, 95.4% (N=1,051) for marijuana, and 99.8% (N=1,102) for other illegal drugs. The parents also gave their perceptions of how much and how often their students would consume alcohol. When asked how much their students planned to drink each occasion, 57.3% (N=613) replied that their students did not plan to drink, while 14.6% (N=156) replied that their students would drink three or more drinks. When asked how often their students planned to drink, 56.7 (N=618) responded never, while 20.1% (N=229) reported once a week or more.

PSEG parent perceptions of student use. Parents in the experimental group were also asked about their expectations regarding the quantity and frequency of alcohol use. When asked how much they expected their students to drink per occasion, 62.3% (N=674) responded zero, while 13.2% (N=143) responded that they expected their students to drink three or more drinks per occasion. When asked how often they expected their students to drink, 72.8% (N=778) expected them never to drink, while 10.0% (N=107) expected them to drink once a week or more.

PSEG parent expectations. The parents in the experimental group were also asked if they had had a conversation about their expectations of their students concerning alcohol and other drugs and if they planned on having a conversation with their students. The majority of parents responded positively to both questions. Only 16.8% (N=186) had not discussed their expectations, while 2.8% (N=29) responded that they did not plan on having a conversation about their expectations with the students.

PSEG demographics. The parents in the experimental group also reported the gender, age, and ethnic origin of their students. These results included 62.1% (N=690) female, 37.9%

(N=421) male; 0.9% (N=10) American Indian/Alaskan Native, 2.9% (N=32) Asian/Pacific Islander, 5.3% (N=58) Black, 2.3% (N=25) Hispanic/Latino/a, 85.7% (N=945) White, 1.5% (N=17) Multiracial, 0.8% (N=9) Biracial, 0.6% (N=7) Other; and 96.7% (N=1,053) 18 years of age, 3.2% (N=35) 19 years of age, and 0.1% (N=1) 20 years of age.

Parent Summer Control Group(PSCG)

Of the 2,118 parents who completed the survey during first-year student orientation sessions, 47.1% (N=997) were in the control group. Most parents' perceptions in the control group were consistent with the total parent sample and the experimental group related to the tested variables. The percentage of parents in the experimental group who perceived that their students had not used included 91.9% (N=912) for tobacco, 54.9% (N=534) for alcohol, 94.2% (N=928) for marijuana, and 98.9% (N=978) for other illegal drugs. The parents also gave their perceptions of how much and how often their students would consume alcohol. When asked how much their students planned to drink on each occasion, 59.7% (N=564) replied that their students did not plan to drink, while 12.3% (N=116) replied that their students would drink three or more drinks. When asked how often their students planned to drink, 59.5% (N=578) responded never, while 17.6% (N=169) reported once a week or more.

PSCG parent perceptions of student use. Parents in the control group were also asked about their expectations regarding the quantity and frequency of alcohol use. When asked how much they expected their students to drink per occasion, 64.9% (N=628) responded zero, while 12.9% (N=125) responded that they expected their students to drink three or more drinks per occasion. When asked how often they expected their students to drink, 77.1% (N=724) expected them never to drink, while 8.0% (N=75) expected them to drink once a week or more.

PSCG parent expectations. The parents in the control group were also asked if they had had a conversation about their expectations of their students concerning alcohol and other drugs and if they planned on having a conversation with their students. The majority of parents responded positively to both questions. Only 12.2% (N=120) had not discussed their expectations, while 2.2% (N=20) responded that they did not plan on having a conversation about their expectations with the students.

PSEG demographics. The parents in the control group also reported the gender, age, and ethnic origin of their students. These results included 63.0% (N=621) female, 37.0% (N=365) male; 0.7% (N=7) American Indian/Alaskan Native, 3.8% (N=37) Asian/Pacific Islander, 6.9% (N=67) Black, 1.6% (N=16) Hispanic/Latino/a, 84.1% (N=820) White, 1.0% (N=10) Multiracial, 1.4% (N=14) Biracial, 0.4% (N=4) Other; and 96.2% (N=932) 18 years of age, and 3.8% (N=37) 19 years of age.

Student Summer Results

Student Survey I: Summer All (SSSA)

There were 1,945 surveys completed by first-year students attending the sixteen summer orientation sessions. Most students did not report using tobacco, marijuana or other illegal drugs in the last year. In fact, 77.7% (N=1,501) reported not using tobacco, while 87.2% (N=1,684) reported not using marijuana and 97.9% (N=1,886) reported not using other illegal drugs. On the other hand, 59.6% (N=1,146) of students had used alcohol in the last year. Students also reported how many drinks they consumed the last time they partied or socialized. There were 35.8% (N=664) who reported not consuming any alcohol, while 34.8% (N=646) reported consuming 3 or more drinks. When asked about the number of days in which they had consumed alcohol in the last two weeks, 65.3% (N=1,215) reported not drinking, while 2.5% (N=47) reported

drinking seven days or more. The students' past use of alcohol, tobacco and other drugs can be seen in Table 2. This table includes the means of the entire sample as well as the experimental and control groups. The means of the first four variables in the table represent a scale of 1-9, 1 representing did not use and 9 representing used every day, and are described further in the table.

Table 2

Alcohol and Other Drug Use of Students in the Last Year for Those Reporting Any Use

	N	M	SD
Student Tobacco Use in Last Year*			
Total	430	4.02	2.145
Experimental	225	3.96	2.078
Control	205	4.09	2.219
Student Alcohol Use in Last Year*			
Total	1,146	3.91	1.499
Experimental	588	3.95	1.515
Control	558	3.87	1.483
Student Marijuana Use in Last Year*			
Total	247	3.57	1.932
Experimental	127	3.44	1.780
Control	120	3.70	2.081
Student Other Illegal Drug Use in Last Year*			
Total	41	3.24	1.685
Experimental	19	2.95	1.353
Control	22	3.50	1.921

Table 2 (continued)

Alcohol and Other Drug Use of Students in the Last Year for Those Reporting Any Use

	N	M	SD
How Many Drinks Students Consumed Last Time Drank**			
Total	644	4.32	3.192
Experimental	337	4.44	3.036
Control	307	4.18	3.355
How Many Days Students Drank in Last Two Weeks**			
Total	646	2.63	2.169
Experimental	338	2.61	2.027
Control	308	2.66	2.318

Note.

* The measures for student tobacco, alcohol, marijuana, and other illegal drugs use included the following responses:

2=Used once a year

6=Used once a week

3=Used 6 times a year

7=Used 3 times a week

4=Used once a month

8=Used 5 times a week

5=Used twice a month

9=Used every day

**The measures for the number of drinks consumed last time the student drank and number of days alcohol was consumed by the student in the last two weeks represent a continuous scale.

SSSA intent to drink. Students were also asked how often and how much they planned to drink at UGA. When asked how often they planned to drink, 45.7% (N=873) stated that they intended not to drink, and 22.3% (N=426) intended to drink once per week or more. When asked

how much they intended to drink per occasion, 44.9% (N=851) reported they planned on not drinking, while 30.7% (N=582) had the intent to drink three or more drinks on each occasion.

SSSA perceptions of parental expectations. Perceived parental expectations of the quantity and frequency of alcohol use were also asked of the students. When asked about the maximum number of drinks that the students perceived their parents would expect them to drink, 66.0% (N=1,226) reported zero, while 14.6% (N=272) believed that their parents would expect them to drink 3 or more drinks on each occasion. When asked how often they believed their parents expected them to drink, 63.7% (N=1194) reported never and 10.7% (N=200) reported once per week or more. Most students reported that their parents did have a conversation with them about their alcohol and other drug use. In fact, 62.7% (N=1,198) responded yes on this question.

SSSA demographics. The students also reported demographic information, including gender, age, ethnic origin, whether or not they intended to join a fraternity or sorority, and age of first use of alcohol. These results included 67.8% (N=1,300) female, 32.2% (N=616) male; and 0.4% (N=7) American Indian/Alaskan Native, 6.0% (N=114) Asian/Pacific Islander, 8.7% (N=167) Black, 2.4% (N=46) Hispanic/Latino/a, 78.9% (N=1,507) White, 1.6% (N=31) Multiracial, 1.2% (N=23) Biracial, and 0.8% (N=15) Other. In addition, 27.9% (N=532) reported planning on joining a fraternity or sorority. Students were also asked about the age of their first use of alcohol. There were 29.2% (N=548) who reported never consuming alcohol. Of those who reported using alcohol, 45.8% (N=608) reported drinking for the first time at age 15 or younger.

Student Survey I: Summer Experimental Group(SSSE)

Of the 1,945 surveys completed by first-year students attending the sixteen summer orientation sessions, 40.4% (N=981) were placed in the experimental group. Most students in

this group did not report using tobacco, marijuana or other illegal drugs in the last year. In fact, 77.0% (N=753) reported not using tobacco, while 87.0% (N=853) reported not using marijuana and 98.1% (N=958) reported not using other illegal drugs. On the other hand, 60.2% (N=588) of students had used alcohol in the last year. Students also reported how many drinks they consumed the last time they partied or socialized. There were 34.5% (N=324) who reported not consuming any alcohol, while 37.1% (N=349) reported consuming 3 or more drinks. When asked about the number of days in which they had consumed alcohol in the last two weeks, 64.2% (N=607) reported not drinking, while 2.2% (N=21) reported drinking seven days or more.

SSSE intent to drink. Students in the experimental group were also asked how often and how much they planned to drink at UGA. When asked how often they planned to drink, 45.3% (N=440) stated that they intended not to drink, and 23.7% (N=230) intended to drink once per week or more. When asked how much they intended to drink per occasion, 44.8% (N=431) reported they planned on not drinking, while 31.5% (N=303) had the intent to drink three or more drinks on each occasion.

SSSE perceptions of parental expectations. Perceived parental expectations of the quantity and frequency of alcohol use were also asked of the students in the experimental group. When asked about the maximum number of drinks that the students perceived their parents would expect them to drink, 64.0% (N=608) reported zero, while 14.8% (N=141) believed that their parents would expect them to drink 3 or more drinks on each occasion. When asked how often they believed their parents expected them to drink, 60.9% (N=584) reported never and 12.1% (N=116) reported once per week or more. Most students reported that their parents had had a conversation with them about their alcohol and other drug use. In fact, 62.1% (N=601) responded yes on this question.

SSSE demographics. The students in the experimental group also reported demographic information, including gender, age, ethnic origin, whether or not they intended to join a fraternity or sorority, and age of first use of alcohol. These results included 66.6% (N=647) female, 33.4% (N=324) male; and 0.5% (N=5) American Indian/Alaskan Native, 6.8% (N=66) Asian/Pacific Islander, 8.0% (N=77) Black, 2.6% (N=25) Hispanic/Latino/a, 78.4% (N=758) White, 2.2% (N=21) Multiracial, 0.9% (N=9) Biracial, and 0.6% (N=6) Other. In addition, 26.9% (N=261) reported planning on joining a fraternity or sorority. Of those who reported using alcohol, 46.2% (N=320) reported drinking for the first time at age 15 or younger.

Student Survey I: Summer Control Group (SSSC)

Of the 1,945 surveys completed by first-year students attending the sixteen summer orientation sessions, 48.9% (N=952) were placed in the control group. Most students in this group did not report using tobacco, marijuana or other illegal drugs in the last year. In fact, 78.5% (N=747) reported not using tobacco, while 87.4% (N=831) reported not using marijuana and 97.7% (N=928) reported not using other illegal drugs. On the other hand, 58.9% (N=558) of students in this group had used alcohol in the last year. Students also reported how many drinks they consumed the last time they partied or socialized. There were 37.1% (N=340) who reported not consuming any alcohol, while 32.4% (N=297) reported consuming 3 or more drinks. When asked about the number of days in which they had consumed alcohol in the last two weeks, 66.4% (N=608) reported not drinking, while 2.8% (N=26) reported drinking seven days or more.

SSSC intent to drink. Students in the control group were also asked how often and how much they planned to drink at UGA. When asked how often they planned to drink, 46.1% (N=433) stated that they intended not to drink, and 20.9% (N=196) intended to drink once per week or more. When asked how much they intended to drink per occasion, 45.0% (N=420)

reported they planned on not drinking, while 29.9% (N=279) had the intent to drink three or more drinks on each occasion.

SSSC perceptions of parental expectations. Perceived parental expectations of the quantity and frequency of alcohol use were also asked of the students in the control group. When asked about the maximum number of drinks that the students perceived their parents would expect them to drink, 68.1% (N=618) reported zero, while 14.4% (N=131) believed that their parents would expect them to drink 3 or more drinks on each occasion. When asked how often they believed their parents expected them to drink, 66.6% (N=610) reported never and 9.2% (N=84) reported once per week or more. Most students reported that their parents had had a conversations with them about their alcohol and other drug use. In fact, 63.3% (N=597) responded yes on this question.

SSSC demographics. The students in the control group also reported demographic information, including gender, age, ethnic origin, whether or not they intended to join a fraternity or sorority, and age of first use of alcohol. These results included 69.1% (N=653) female, 30.9% (N=292) male; and 0.2% (N=2) American Indian/Alaskan Native, 5.1% (N=48) Asian/Pacific Islander, 9.5% (N=90) Black, 2.2% (N=21) Hispanic/Latino/a, 79.4% (N=749) White, 1.1% (N=10) Multiracial, 1.5% (N=14) Biracial, and 1.0% (N=9) Other. In addition, 28.9% (N=271) reported planning on joining a fraternity or sorority. Of those who reported using alcohol, 45.5% (N=291) reported drinking for the first time at age 15 or younger.

Student Fall Results

Student Survey II: Fall All (SSFA)

There were 4,866 surveys sent out to first-year students during the third week of fall classes. Three e-mailed invitations were rejected due to the recipients' mail boxes being full. A

reminder was sent to students after one week. The survey was available for a total of ten days. There were 1,387 individual students who completed the online survey. Duplicates were removed from the fall sample. For unknown reasons, some students took the survey more than one time. Most who completed it multiple times did so twice, which might be based on the initial invitation and the reminder. One student completed it eleven times. Only the first survey completed by each student was kept, leaving 1,387 surveys available for analysis.

SSFA demographics. Of those who completed the survey in the fall, 27.8% (N=380) were male and 72.7% (N=987) were female. In addition, the race and ethnicity reported by the students included 0.2% (N=3) American Indian/Alaskan Native, 3.5% (N=48) Asian/Pacific Islander, 7.7% (N=105) Black, 7.5% (N=103) Hispanic/Latino/a, 77.5% (N=1,062) White, 1.3% (N=18) Multiracial, 1.3% (N=18) Biracial, and 0.9% (N=13) Other.

SSFA ATOD Use. Students were asked again in the fall about their alcohol, tobacco, marijuana, and other drug use during the last two weeks. Most students did not use any of these substances during this time period. Those who did not use included 55.9% (N=765) for alcohol, 93.8% (N=1284) for marijuana, 86.9% (1,191) for tobacco, and 99.0% (N=1,356) for other drugs. Of those students who consumed alcohol in the last two weeks, 47.1% (N=282) reported drinking 3 or more drinks the last time they consumed.

SSFA perceptions of parental expectations. Students were asked again in the fall about their perceptions of their parents' expectations with regard to their alcohol use. When asked about the maximum number of drinks that the students perceived their parents would expect them to drink, 51.7% (N=687) reported zero, while 23.7% (N=315) believed that their parents would expect them to drink 3 or more drinks on each occasion. When asked how often they believed their parents expected them to drink, 60.7% (N=828) reported never and 16.9%

(N=231) reported once per week or more. Most students reported that their parents had had a conversation with them about their alcohol and other drug use. In fact, 63.1% (N=864) responded yes on this question.

SSFA participation in ATOD class and Greek recruitment. Finally, students were asked about their participation in a required, online alcohol education course and in fall recruitment for Greek organizations. Most students had started or completed the online alcohol education course. In fact, 65.0% (N=890) had completed or started the course. In addition, the majority of students, 71.8% (N=982), did not participate in fall recruitment.

Student Survey II: Fall Experimental Group(SSFE)

SSFE demographics. Of the 1,387 students who completed the online fall survey, 48.7% (N=676) were in the experimental group. Of these, 30.4% (N=205) were male and 69.6% (N=470) were female. In addition, the race and ethnicity reported by the students included 0.1% (N=1) American Indian/Alaskan Native, 3.6% (N=24) Asian/Pacific Islander, 8.0% (N=54) Black, 5.5% (N=37) Hispanic/Latino/a, 79.7% (N=538) White, 1.2% (N=8) Multiracial, 1.0% (N=7) Biracial, and 0.9% (N=6) Other.

SSFE ATOD Use. Students in the fall experimental group were asked about their alcohol, tobacco, marijuana, and other drug use during the last two weeks. Most students did not use any of these substances during this time period. Those who did not use included 56.4% (N=380) for alcohol, 93.6% (N=631) for marijuana, 87.1% (588) for tobacco, and 99.0% (N=668) for other drugs. Of those students who consumed alcohol in the last two weeks, 64.7% (N=189) reported drinking 3 or more drinks the last time they consumed.

SSFE perceptions of parental expectations. Students in the fall experimental group were asked about their perceptions of their parents' expectations with regard to their alcohol use.

When asked about the maximum number of drinks that the students perceived their parents would expect them to drink, 52.4% (N=343) reported zero, while 23.8% (N=156) believed that their parents would expect them to drink 3 or more drinks on each occasion. When asked how often they believed their parents expected them to drink, 61.2% (N=411) reported never and 17.6% (N=118) reported once per week or more. Most students reported that their parents had had a conversation with them about their alcohol and other drug use. In fact, 63.4% (N=428) responded yes on this question.

SSFA participation in ATOD class and Greek recruitment. Finally, students in the fall experimental group were asked about their participation in a required, online alcohol education course and in fall recruitment for Greek organizations. Most students had started or completed the online alcohol education course. In fact, 66.1% (N=446) had completed or started the course. In addition, the majority of students, 72.4% (N=488), did not participate in fall recruitment.

Student Survey II: Fall Control Group (SSFC)

SSFC demographics. Of the 1,387 students who completed the online fall survey, 50.1% (N=695) were in the control group. Of these, 25.3% (N=175) were male and 74.7% (N=517) were female. In addition, the race and ethnicity reported by the students included 0.3% (N=2) American Indian/Alaskan Native, 3.5% (N=24) Asian/Pacific Islander, 7.3% (N=51) Black, 9.5% (N=66) Hispanic/Latino/a, 75.4% (N=524) White, 1.4% (N=10) Multiracial, 1.6% (N=11) Biracial, and 1.0% (N=7) Other.

SSFC ATOD Use. Students in the fall control group were asked about their alcohol, tobacco, marijuana, and other drug use during the last two weeks. Most students did not use any of these substances during this time period. Those who did not use included 55.4% (N=385) for alcohol, 94.0% (N=653) for marijuana, 86.8% (603) for tobacco, and 99.0% (N=688) for other

drugs. Of those students who consumed alcohol in the last two weeks, 36.8% (N=113) reported drinking 3 or more drinks the last time they consumed.

SSFC perceptions of parental expectations. Students in the fall control group were asked about their perceptions of their parents' expectations in regards to their alcohol use. When asked about the maximum number of drinks that the students perceived their parents would expect them to drink, 51.0% (N=344) reported zero, while 23.6% (N=159) believed that their parents would expect them to drink 3 or more drinks on each occasion. When asked how often they believed their parents expected them to drink, 60.3% (N=417) reported never and 16.3% (N=113) reported once per week or more. Most students reported that their parents had had a conversation with them about their alcohol and other drug use. In fact, 62.8% (N=436) responded yes on this question.

SSFC participation in ATOD class and Greek recruitment. Finally, students in the fall control group were asked about their participation in a required, online alcohol education course and in fall recruitment for Greek organizations. Most students had started or completed the online alcohol education course. In fact, 63.9% (N=444) had completed or started the course. In addition, the majority of students, 71.0% (N=500), did not participate in fall recruitment.

Parent/Student-Summer/Student-Fall Match Results

Parent/Student-Summer/Student-Fall Match: All(MATCH-A)

There were 2,118 parent surveys, 1,945 student summer surveys, and 1,387 student fall surveys completed. In order to match the surveys, matching questions were used and coded to create an 11 digit matching code. This code included the first initial of the student's middle name. This was coded 01-26. The second part of the matching code was the student's home zip code, a five digit number. Participants were also asked to include the day of the month the

student was born. This number was coded 01-31. The final two digits of the matching code represented the orientation session number representing the exact session that the participants attended during the summer. These sessions were coded 01-16.

Table 3 summarizes the number of participants in each group, including the general parent, student-summer and student-fall groups. It shows that 179 matches were created using the matching system. There were few matches when compared to the potential number of matches for several reasons. First, the matching system was created into an eleven digit code based on five variables from the surveys. These codes were input manually into the database and errors were possible in this process. Second, the matches were made manually in the data base. Again, errors could have occurred. Third, in order for a complete match to occur, parents had to attend orientation and select to participate in the survey; students had to attend orientation and select to participate in the survey; and students in the fall had to select to participate in the on-line survey. Only when this occurred, a match could be created. The complexity of this system resulted in the low number of matches.

The response rate for the fall survey is also included in Table 3. There were 4,866 surveys mailed to the first-year students. Of those, 1,387 were returned. It is important to note that there were more than 4,866 enrolled during the fall, however, some of these students' e-mail addresses could not be released because of access restrictions placed upon them.

Table 3

Survey Participant Numbers

	Number of Participants			
	All	Experimental	Control	Response Rate
Parent Summer Survey	2,118	1,115	997	NA
Student Summer Survey	1,945	981	952	NA
Student Fall Survey	1,387	676	695	28.5%
Match	179	87	91	NA

MATCH-A parent expectations of ATOD use. Of the matched surveys, the parents' expectations of quantity and frequency of alcohol use were consistent with the aggregate survey results of parents. When asked how much they expected their students to drink per occasion, 74.4% (N=131) responded zero, while 3.4% (N=6) responded that they expected their students to drink three or more drinks per occasion. When asked how often they expected their students to drink, 81.5% (N=141) expected them never to drink, while 2.9% (N=5) expected them to drink once a week or more.

MATCH-A student ATOD use pre-matriculation and intent to use post-matriculation. The quantity and frequency of alcohol use reported by students during the summer was also reported. Most students did not report using tobacco, marijuana or other illegal drugs in the last year. In fact, 83.7% (N=149) reported not using tobacco, while 89.9% (N=160) reported not using marijuana and 98.9% (N=175) reported not using other illegal drugs. On the other hand, 52.8% (N=94) of students had used alcohol in the last year. Students also reported how many drinks they consumed the last time they partied or socialized. There were 41.8% (N=71) who reported not consuming any alcohol, while 28.8% (N=49) reported consuming 3 or more drinks.

When asked about the number of days in which they had consumed alcohol in the last two weeks, 73.8% (N=127) reported not drinking, while 1.2% (N=2) reported drinking seven days or more. Students were also asked about their plans to consume alcohol after arriving on campus. When asked how often they planned to drink, 52.2% (N=92) stated that they intended not to drink, and 12.4% (N=22) intended to drink once per week or more. When asked how much they intended to drink per occasion, 51.7% (N=91) reported they planned on not drinking, while 23.9% (N=42) had the intent to drink three or more drinks on each occasion.

MATCH-A perceptions of parental expectations. Perceived parental expectations on the quantity and frequency of alcohol use were also asked of the students. When asked about the maximum number of drinks that the students perceived their parents would expect them to drink, 71.8% (N=125) reported zero, while 12.1% (N=21) believed that their parents would expect them to drink 3 or more drinks on each occasion. When asked how often they believed their parents expected them to drink, 72.4% (N=126) reported never and 5.7% (N=10) reported once per week or more. Most students reported that their parents had had a conversation with them about their alcohol and other drug use. In fact, 63.5% (N=113) responded yes on this question.

MATCH-A demographics. The students also reported demographic information, including gender, age of first consumption, ethnic origin, and whether or not they intended to join a fraternity or sorority. These results included 72.5% (N=129) female, 27.5% (N=49) male; and 0.0% (N=0) American Indian/Alaskan Native, 1.7% (N=3) Asian/Pacific Islander, 6.2% (N=11) Black, 1.7% (N=3) Hispanic/Latino/a, 87.1% (N=155) White, 1.7% (N=3) Multiracial, 1.1% (N=2) Biracial, and 0.6% (N=1) Other. In addition, 23.7% (N=42) reported planning on joining a fraternity or sorority. Of those who reported using alcohol, 45.0% (N=49) reported drinking for the first time at age 15 or younger.

MATCH-A student alcohol use post-matriculation. Finally, in the fall survey, students were asked about their alcohol consumption during the first two weeks on campus. The majority of students did not drink. In fact, 68.4% (N=121) reported not drinking at all, while 11.3% (N=20) reported drinking on 3 or more days in the last two weeks. Of those students who consumed alcohol in the last two weeks, 54.5% (N=30) drank 3 or more drinks.

Parent/Student-Summer/Student-Fall Match: Experimental Group(MATCH-E)

MATCH-E parent expectations of ATOD use. Of the matched surveys in the experimental group, the parents' expectations of quantity and frequency of alcohol use were consistent with the aggregate survey results of parents. When asked how much they expected their students to drink per occasion, 76.7% (N=66) responded zero, while 3.5% (N=3) responded that they expected their students to drink three or more drinks per occasion. When asked how often they expected their students to drink, 84.7% (N=72) expected them never to drink, while 2.4% (N=2) expected them to drink once a week or more.

MATCH-E student ATOD use pre-matriculation and intent to use post-matriculation. The quantity and frequency of alcohol use reported by students in the matched experimental group during the summer were also reported. Most students did not report using tobacco, marijuana or other illegal drugs in the last year. In fact, 85.1% (N=74) reported not using tobacco, while 92.0% (N=80) reported not using marijuana and 98.8% (N=85) reported not using other illegal drugs. On the other hand, 54.0% (N=47) of students had used alcohol in the last year. Students also reported how many drinks they consumed the last time they partied or socialized. There were 36.3% (N=29) who reported not consuming any alcohol, while 32.5% (N=26) reported consuming 3 or more drinks. When asked about the number of days in which they had consumed alcohol in the last two weeks, 72.0% (N=59) reported not drinking, while

0.0% (N=0) reported drinking six days or more. Students were also asked about their plans to consume alcohol after arriving on campus. When asked how often they planned to drink, 52.9% (N=46) stated that they intended not drink, and 12.6% (N=11) intended to drink once per week or more. When asked how much they intended to drink per occasion, 52.9% (N=46) reported they planned on not drinking, while 24.1% (N=21) had the intent to drink three or more drinks on each occasion.

MATCH-E perceptions of parental expectations. Perceived parental expectations on the quantity and frequency of alcohol use were also asked of the students in the matched experimental group. When asked about the maximum number of drinks that the student perceived their parents would expect them to drink, 73.6% (N=64) reported zero, while 11.5% (N=10) believed that their parents would expect them to drink 3 or more drinks on each occasion. When asked how often they believed their parents expected them to drink, 71.3% (N=62) reported never and 5.7% (N=5) reported once per week or more. Most students reported that their parents had had a conversation with them about their alcohol and other drug use. In fact, 70.1% (N=61) responded yes on this question.

MATCH-E demographics. The students in the matched experimental group also reported demographic information, including gender, age of first consumption, ethnic origin, and whether or not they intended to join a fraternity or sorority. These results included 71.3% (N=62) female, 28.7% (N=25) male; and 0.0% (N=0) American Indian/Alaskan Native, 2.3% (N=2) Asian/Pacific Islander, 3.4% (N=3) Black, 2.3% (N=2) Hispanic/Latino/a, 88.5% (N=77) White, 2.3% (N=2) Multiracial, 0.0% (N=0) Biracial, and 1.1% (N=1) Other. In addition, 23.3% (N=20) reported planning on joining a fraternity or sorority. Of those who reported using alcohol, 46.4% (N=26) reported drinking for the first time at age 15 or younger.

MATCH-E student alcohol use post-matriculation. Finally, in the fall survey, students were asked about their alcohol consumption during the first two weeks on campus. The majority of students did not drink. In fact, 70.9% (N=61) reported not drinking at all, while 12.8% (N=11) reported drinking on 3 or more days in the last two weeks. Of those students who consumed alcohol in the last two weeks, 44.0% (N=11) drank 3 or more drinks.

Parent/Student-Summer/Student-Fall Match: Control Group(MATCH-C)

MATCH-C parent expectations of ATOD use. Of the matched surveys in the control group, the parents' expectations of quantity and frequency of alcohol use were consistent with the aggregate survey results of parents. When asked how much they expected their students to drink per occasion, 72.2% (N=65) responded zero, while 3.3% (N=3) responded that they expected their students to drink three or more drinks per occasion. When asked how often they expected their students to drink, 78.4% (N=69) expected them never to drink, while 3.4% (N=3) expected them to drink once a week or more.

MATCH-C student ATOD use pre-matriculation and intent to use post-matriculation. The quantity and frequency of alcohol use reported by students in the matched control group during the summer were also reported. Most students did not report using tobacco, marijuana or other illegal drugs in the last year. In fact, 82.4% (N=75) reported not using tobacco, while 87.9% (N=80) reported not using marijuana and 98.9% (N=90) reported not using other illegal drugs. On the other hand, 51.6% (N=44) of students had used alcohol in the last year. Students also reported how many drinks they consumed the last time they partied or socialized. There were 46.7% (N=42) who reported not consuming any alcohol, while 25.6% (N=23) reported consuming 3 or more drinks. When asked about the number of days in which they had consumed alcohol in the last two weeks, 75.6% (N=68) reported not drinking, while 3.3% (N=3) reported

drinking 6 days or more. Students were also asked about their plans to consume alcohol after arriving on campus. When asked how often they planned to drink, 51.1% (N=46) stated that they intended not to drink, and 12.2% (N=11) intended to drink once per week or more. When asked how much they intended to drink per occasion, 50.6% (N=45) reported they planned on not drinking, while 23.6% (N=21) had the intent to drink three or more drinks on each occasion.

MATCH-C perceptions of parental expectations. Perceived parental expectations of the quantity and frequency of alcohol use were also asked to the students in the matched control group. When asked about the maximum number of drinks that the students perceived their parents would expect them to drink, 70.1% (N=61) reported zero, while 12.6% (N=11) believed that their parents would expect them to drink 3 or more drinks on each occasion. When asked how often they believed their parents expected them to drink, 73.6% (N=64) reported never and 5.7% (N=5) reported once per week or more. Most students reported that their parents had had a conversation with them about their alcohol and other drug use. In fact, 57.1% (N=52) responded yes on this question.

MATCH-C demographics. The students in the matched control group also reported demographic information, including gender, age of first consumption, ethnic origin, and whether or not they intended to join a fraternity or sorority. These results included 73.6% (N=67) female, 26.4% (N=24) male; and 0.0% (N=0) American Indian/Alaskan Native, 1.1% (N=1) Asian/Pacific Islander, 8.8% (N=8) Black, 1.1% (N=1) Hispanic/Latino/a, 85.7% (N=78) White, 1.1% (N=1) Multiracial, 2.2% (N=2) Biracial, and 0.0% (N=0) Other. In addition, 24.2% (N=22) reported planning on joining a fraternity or sorority.

MATCH-C student alcohol use post-matriculation. Finally, in the fall survey, students were asked about their alcohol consumption during the first two weeks on campus. The majority

of students did not drink. In fact, 65.9% (N=60) reported not drinking at all, while 9.9% (N=9) reported drinking on 3 or more days in the last two weeks. Of those students who consumed alcohol in the last two weeks, 46.7% (N=14) drank 3 or more drinks.

Results of Data Analysis

Research question 1 was, “Are parents more likely to have discussions about alcohol and other drugs with their students if they attend an intervention session during orientation?” This question was assessed in several ways. This included nonparametric analysis using the Mann-Whitney U test for assessing the difference in medians between two samples. This type of test was used because the scales were not equal intervals, thus requiring nonparametric analysis. Specifically, the survey question asked about whether or not the student’s parents had a conversation with the student. The answers included yes, no, and do not know which were categorical, not an equal interval scale. This violates one of the assumptions of a t-test and ANOVA. The Mann-Whitney U test is a non-parametric test that creates ranking scales for such situations. This procedure allows data to be analyzed to see what variables are significant. This test was used on both the aggregate data and the matched parent summer/student-summer/student-fall data sets.

Table 4 shows the frequencies of the question concerning whether or not parents had had a discussion about alcohol and other drugs with their students. The Mann-Whitney U analyses of both data sets revealed no significant differences between the control group and the experimental group in terms of whether or not parents discussed their expectations with the students. These results included $U=231739.50$, $Z=-0.403$, $p=0.687$ for the total fall student data set and $U=3831.50$, $Z=-0.443$, $p=0.656$ for the matched parent-summer/student-summer/student-fall data set.

Table 4

Frequencies-Whether the Parents Discussed Alcohol Use with Student

	Yes		No		Don't Know	
	%	n	%	n	%	n
<u>All Fall Respondents</u>						
All	63.1	864	33.1	453	3.8	52
Control Group	63.4	428	33.5	226	3.1	21
Experimental Group	62.8	436	32.7	227	4.5	31
<u>Matched Respondents</u>						
All	64.0	114	34.3	61	1.7	3
Control Group	62.6	57	35.2	32	2.2	2
Experimental Group	65.5	57	33.3	29	1.1	1

Research question 2 was, “Are there differences in first-year student alcohol use based on whether parents attend an intervention session during orientation?” There were two items on the survey that addressed this question. First, students were asked how many days they consumed the last two weeks. To examine equality of the means of this data, a t-test was conducted. The results showed that there were no statistically different mean scores for the sample of all the students from the fall survey. In addition, there were no statistically different mean scores when looking at the matched parent-summer/student-summer/student-fall data. Table 5 shows number of survey responses and means for both groups. The two-tailed significance scores for the matched group were $t=.342$, $df=175$, $p=.252$. The scores for the total fall data set were $t=.177$, $df=1367$, $p=.239$.

Table 5

Number of Days Students Drank in the Last Two Weeks Comparing Parent-Summer/Student-Summer/Student-Matched Data and All Student Fall Data

	N	Mean	SD
All Data			
Experimental	674	1.46	2.346
Control	695	1.32	2.062
Matched Data			
Experimental	86	0.81	1.656
Control	92	0.74	1.357

The second question that addressed research question 2 asked about the number of drinks consumed by students the last time they consumed. Again, a t-test was used to analyze this data. However, the question asked about the last time the student consumed, which could have been anytime in the past. In order to control for the use in the last week, cases were removed if the student had not consumed in the last two weeks. Table 6 shows number of survey responses and means for both groups. The results showed that there were no statistically different mean scores for the sample of all the students from the fall survey. In addition, there were no statistically different mean scores when looking at the matched parent-summer/student-summer/student-fall data. The two-tailed significance scores for the matched group were $t=1.074$, $df=53$, $p=.288$. The scores for the total fall data set were $t=1.143$, $df=597$, $p=.254$.

Table 6

Number of Drinks Consumed by the Student in the Last Two Weeks Comparing

Parent-Summer/Student-Summer/Student-Matched Data and All Student Fall Data

	N	Mean	SD
All Data			
Experimental	292	4.07	2.822
Control	307	3.82	2.626
Matched Data			
Experimental	25	3.76	2.712
Control	30	3.10	1.821

Research question 3 was, “Are there differences in first-year student tobacco use based on whether parents attend an intervention session during orientation?” To examine equality of the means of this data, a t-test was conducted. The results showed that there were no statistically different mean scores for the sample of all the students from the fall survey. In addition, there were no statistically different mean scores when looking at the matched parent-summer/student-summer/student-fall data. Table 7 shows number of survey responses and means for both groups. The two-tailed significance scores for the matched group were $t=-.544$, $df=175$, $p=.587$. The scores for the total fall data set were $t=-.623$, $df=1368$, $p=.534$.

Table 7

Number of Days Used Tobacco in the Last Two Weeks Comparing Parent-Summer/Student-Summer/Student-Matched Data and All Student Fall Data

	N	Mean	SD
All Data			
Experimental	675	0.64	2.340
Control	695	0.73	2.621
Matched Data			
Experimental	86	0.20	1.125
Control	91	0.30	1.287

Research question 4 was, “Are there differences in first-year student marijuana use based on whether parents attend an intervention session during orientation?” This question was assessed in several ways. To examine equality of the means of this data, a t-test was conducted. The results showed that there were no statistically different mean scores for the sample of all the students from the fall survey. In addition, there were no statistically different mean scores when looking at the matched parent-summer/student-summer/student fall data. Table 8 shows number of survey responses and means for both groups. The two-tailed significance scores for the matched group were $t=-1.079$, $df=174$, $p=.282$. The scores for the total fall data set were $t=-.371$, $df=1367$, $p=.711$.

Table 8

Number of Days Used Marijuana in the Last Two Weeks Comparing Parent-Summer/Student-Summer/Student-Matched Data and All Student Fall Data

	N	Mean	SD
All Data			
Experimental	674	0.19	1.066
Control	695	0.21	1.220
Matched Data			
Experimental	85	0.01	0.108
Control	91	0.04	0.254

Research question 5 was, “Are there differences in first-year student other drug use based on whether parents attend an intervention session during orientation?” This question was assessed in several ways. To examine equality of the means of this data, a t-test was conducted. The results showed that there were no statistically different mean scores for the sample of all the students from the fall survey. In addition, there were no statistically different mean scores when looking at the matched parent-summer/student-summer/student-fall data. Table 9 shows number of survey responses and means for both groups. The two-tailed significance scores for the total fall data set were $t=.672$, $df=1368$, $p=.502$. The scores for the matched group could not be computed because there were no drug users in either group.

Table 9

Number of Days Used Other Drugs in the Last Two Weeks Comparing Parent-Summer/Student-Summer/Student-Matched Data and All Student Fall Data

	N	Mean	SD
All Data			
Experimental	675	0.03	0.561
Control	695	0.02	0.217
Matched Data			
Experimental	86	1.00	0.000
Control	92	1.00	0.000

Additional Results

The five research questions of this study focused on the experimental intervention conducted with the parents. The results were examined to assess the impact that the intervention had on student behavior post-matriculation. However, there are many variables included in the study that could be examined to predict student post-matriculation alcohol use even if the intervention did not significantly impact this behavior. These variables included the student's past alcohol and other drug use, parental expectations, student perception of expectations, and intent to use alcohol post-matriculation. Analysis of correlations as well as multiple regression analyses were used to further examine the data.

Matched surveys were used to test the proposed model. This was done to look for relationships between the matched surveys and to make predictions of alcohol use of the first-year students. To utilize this method of analysis, several variables had to be recoded.

*Variable Recoding*Parent Expectations-Number of Days in a Year the Student Will Consume Alcohol

The parent expectation variable was originally coded 1-9 based on the following responses: “I expect my student not to drink,” “it is okay for my student to drink once during the year,” “it is okay for my student to drink 6 times during the year,” “it is okay for my student to drink once a month,” “it is okay for my student to drink twice a month,” “it is okay for my student to drink once a week,” “it is okay for my student to drink 3 times a week,” “it is okay for my student to drink 5 times a week,” and “it is okay for my student to drink every day.” To run the analyses using this variable, it was recoded to match the number of days per year that the parents expected the student to drink. Table 10 shows this conversion.

Table 10

Parent Expectation Variable Recoding

Response	Original Code	New Code
I expect my student not to drink	1	0
It is okay for my student to drink once during the year	2	1
It is okay for my student to drink 6 times during the year	3	6
It is okay for my student to drink once a month	4	12
It is okay for my student to drink twice a month	5	24
It is okay for my student to drink once a week	6	52
It is okay for my student to drink 3 times a week	7	156
It is okay for my student to drink 5 times a week	8	260
It is okay for my student to drink every day	9	365

Race

Race was originally coded 1-8 for the following racial categories: “American Indian/Alaskan Native,” “Asian/Pacific Islander,” “Black (non-Hispanic),” “Hispanic/Latino/a,” “White (non-Hispanic),” “Multiracial,” “Biracial,” and “other.” This variable was recoded as non-white = 0 and white = 1.

Student-Past Use of Tobacco, Alcohol, Marijuana and Other Drugs

There were four different variables that represented the student’s tobacco, alcohol, marijuana and other drug use in the last year. For each of these variables, the question asked the student how often he/she used in the last year. The responses were coded 1-9 using the following possible answers: “did not use,” “once a year,” “6 times a year,” “once a month,” “twice a month,” “once a week,” “3 times a week,” “5 times a week” and “every day.” Table 11 shows how these responses were recoded.

Table 11

Student Use of Alcohol, Tobacco, Marijuana, and Other Drugs Variable Recoding

Response	Original Code	New Code
I did not use	1	0
Once a year	2	1
6 times a year	3	6
Once a month	4	12
Twice a month	5	24
Once a week	6	52
3 times a week	7	156
5 times a week	8	260

Table 11 (Continued)

Student Use of Alcohol, Tobacco, Marijuana, and Other Drugs Variable Recoding

Response	Original Code	New Code
Every day	9	365

Student Intent to Join a Fraternity/Sorority

Students were asked if they intended to join a fraternity or sorority. The possible responses included “yes,” “no,” and “do not know” and were coded 1-3 respectively. To create a dichotomous variable, “yes” was coded as 1, while “no” and “do not know” were coded together as 0.

Student Plan to Consume Alcohol-Frequency

Students were asked how often they planned to drink after arriving on campus. The responses for this question included: “do not plan to use,” “once a year,” “6 times a year,” “once a month,” “twice a month,” “once a week,” “3 times a week,” “5 times a week” and “every day.”

Originally, these variables were coded 1-9 respectively. They were recoded to correspond to the student use in the last year variable noted in Table 11. The variables were therefore recoded 0-365.

Student Perception of Parental Expectations-Frequency

Students were asked their perception of the number of times per year their parents expected them to drink. The responses included: “My parents expect me not to drink,” “it is okay for me to drink once during the year,” “it is okay for me to drink 6 times during the year,” “it is okay for me to drink once a month,” “it is okay for me to drink twice a month,” “it is okay for me to drink once a week,” “it is okay for me to drink 3 times a week,” “it is okay for me to drink 5 times a week,” and “it is okay for me to drink every day.” These responses were originally coded 1-9

respectively. These variables were recoded to represent the number of times per year the students perceived their parents expected them to drink. The variables were recoded to follow the same coding shown in Table 11 with the range of 0-365.

Age of First Use

The original coding for age of first use reflected the actual age of the student when she/he recalled first using alcohol. If a student reported no use, the variable was coded zero. However, this did not reflect an age scale because the zero appeared to be an age of first use, erroneously skewing the data. Therefore, zeroes were recoded as missing data with the code 997.

Correlations

Correlation coefficients were computed for the seventeen independent and two dependent variables in the model. The results of the correlation analyses for the two dependent variables (days consumed in the last 2 weeks and quantity consumed) with all dependent variables, are shown in Table 12. The table shows significant correlations ($p < .05$ or $p < .01$) between the dependent variables and most of the independent variables. There was no significant correlation between gender, marijuana use in the last year and the control/experimental group variable when compared to the number of days consumed in the last two weeks. There was also no significant correlation between race, marijuana use in the last year and the control/experimental group variable when compared to the number of drinks the students consumed in the last two weeks.

Table 12

Correlation of Student Alcohol Use During the First Two Weeks of Classes

Predictors	Days Consumed Last 2 Weeks	Quantity Consumed
Parent Expectations Frequency	.406**	.271**
Parent Expectations Quantity	.433**	.329**

Table 12 (continued)

Correlation of Student Alcohol Use During the First Two Weeks of Classes

Predictors	Days Consumed Last 2 Weeks	Quantity Consumed
Gender	.102	.274**
Race	.160*	.097
Alcohol Use Last Year	.494**	.457**
Tobacco Use Last Year	.337**	.256**
Marijuana Use Last Year	.005	.019
Other Drug Use Last Year	.301**	.173*
Intent to Join Greek Organization	.393**	.153*
Age of First Consumption	-.372**	-.526**
# Drinks Last Time Drank	.503**	.712**
# Days Drank in Last 2 Weeks	.466**	.415**
Plan to Drink Quantity	.650**	.687**
Plan to Drink Frequency	.602**	.462**
Perception of Parent Expectation Quantity	.460**	.334**
Perception of Parent Expectation Frequency	.508**	.296**
Control/Experimental Group	-.026	-.080

Note. * $p < .05$, ** $p < .01$

The entire correlation matrix was also reviewed for other significant findings. A number showed expected results. These included parents' actual expectations of maximum number of drinks and students' perceptions of their parents' expectations of number of drinks with a correlation of .435 ($p < .01$).

Regression

A standard multiple regression analysis was conducted to evaluate how well quantity and frequency of first-year alcohol use during the first two weeks of the semester could be predicted by parental expectations, gender, past use of alcohol, past use of tobacco, past use of other drugs, intent to drink post-matriculation, and student perception of parental expectations of alcohol use. Although the original model included a control/experimental variable, a variable measuring marijuana use in the last year, and race, these variables were taken out of the final model after assessing their correlations with the dependent variables.

The first regression analysis was conducted to evaluate variables used to predict the number of days a student consumed alcohol during the first two weeks of the fall semester. The linear combination of the predictors was significant, $F(14, 136) = 18.238$, $p = .000$. Table 13 shows all variables in the regression, including the six significant variables.

Table 13

Multiple Regression Results Predicting Days Consumed the Two Weeks Post-Matriculation

Variable	B	SE B	β
Parent Expectations-Frequency	.173	.088	.126*
Parent Expectations-Quantity	.023	.009	.167
Gender	-.085	.178	-.027
Alcohol Use Last Year	-.006	.012	-.068
Tobacco Use Last Year	-.002	.009	-.017
Other Drug Use Last Year	2.371	1.054	.136*
Intent to Join Greek Organization	.688	.185	.207*
Age of First Consumption	.000	.000	.073

Table 13 (continued)

Multiple Regression Results Predicting Days Consumed the Two Weeks Post-Matriculation

Variable	B	SE B	β
# Drinks Last Time Student Drank	.070	.044	.139
# Days Student Drank in Last 2 Weeks	-.200	.125	-.177
Plan to Drink-Quantity	.258	.074	.355*
Plan to Drink-Frequency	.011	.004	.237*
Perception of Parent Expectation-Quantity	-.065	.065	-.117
Perception of Parent Expectation-Frequency	.019	.008	.279*

Note. $R^2 = .652$, * $p < .05$

The second regression analysis was conducted to evaluate variables used to predict the number of drinks consumed by students the last time they consumed alcohol. The linear combination of the predictors was significant, $F(14, 132) = 15.223$, $p = .000$. Table 14 shows all variables in the regression, including the three significant variables.

Table 14

Multiple Regression Results Predicting Number of Drinks Consumed Last Time Student Drank

Variable	B	SE B	β
Parent Expectations Frequency	.025	.014	.123
Parent Expectations Quantity	.081	.136	.181
Gender	.448	.282	.096
Alcohol Use Last Year	-.013	.018	-.098
Tobacco Use Last Year	.019	.013	.127
Other Drug Use Last Year	1.585	1.634	.063

Table 14 (continued)

Multiple Regression Results Predicting Number of Drinks Consumed Last Time Drank

Variable	B	SE B	β
Intent to Join Greek Organization	-.042	.292	-.009
Age of First Consumption	-.001	.000	-.120
# Drinks Last Time Student Drank	.266	.068	.360*
# Days Student Drank in Last 2 Weeks	-.014	.198	-.009
Plan to Drink-Quantity	.357	.114	.337*
Plan to Drink-Frequency	.003	.007	.047
Perception of Parent Expectation-Quantity	-.021	.012	-.210
Perception of Parent Expectation-Frequency	.048	.100	.058

Note. $R^2 = .618$, * $p < .05$

Chapter Summary

Several statistical analyses were conducted to answer the five research questions relating to the influence parents have on students' alcohol and other drug use during their first two weeks on a college campus. It was proposed that the students of parents who received an experimental intervention during summer orientation would use less alcohol and other drugs when compared to students whose parents did not receive such an intervention. It was found that there were no differences between the students whose parents received the intervention and those whose parents did not.

Additional analyses were conducted to predict what influences a student's alcohol use during the first two weeks on campus. It was found that alcohol use was correlated with most of the variables in the proposed model except past marijuana use and whether or not the parents of

the student received an intervention during summer orientation. Regression analysis was also conducted. It was found that the variables used in the regression could predict post-matriculation, first-year student alcohol use.

CHAPTER 5

DISCUSSION

This final chapter is a summary and discussion of significant findings and an examination of the limitations of this particular study. The chapter also provides a discussion of the implications for future research and practice in the area of alcohol and drug education and student affairs practice in general.

Limitations

There are several limitations to this study. The campus used for this study had several significant changes and events relating to alcohol during the planning and implementation of this research. First, there was a high profile student death on campus, which raised awareness of the impact of high-risk alcohol and drug use. Second, a two million dollar gift was given to the institution for alcohol prevention, intervention and counseling. Again, this raised much attention around the issue and led to another change, which was the implementation of a required alcohol program for all incoming students. The instrument was adapted to take this into account. Finally, the campus implemented new alcohol policies in the Student Code of Conduct, including a stricter parental notification policy, minimum sanctions for alcohol and drug violations, and required suspension for second offenders. All of these changes increased the discussion surrounding alcohol and other drug issues on campus.

Another limitation of this study was the outcome of the placement of the student survey during student orientation. The Office of Admissions at the university approved the surveys being conducted during the session in which the University Health Center was presenting.

During previous years, the time allotted for this presentation was on the first day of the two-day, student orientation. However, when the schedule was finalized, the time allotted was in the morning of the second day. This created two potential issues for the study. First, the students received an alcohol education session at the end of the first day. This session could have influenced the answers that the students provided on the second day. The second issue was based on anecdotal information on what some students do during the overnight stay on campus. Some students choose to go out drinking while on campus for orientation. Potentially, this impacts their attendance at morning sessions on the second day. This was noted by the coordinator of the University Health Center's session. She distributed items to all first-year students during the session and made note of fewer items distributed during this orientation year as compared with other years when the presentation was on the first day. If there was a loss in students for this reason, it might have resulted in fewer high-risk drinkers participating in the study.

The study was limited in that there were a limited number of matches to run a regression analysis on the proposed model. The original model contained 17 dependent variables and required 187 matches. However, there were not that many matches. This became a moot point after the examination of the correlation matrix because two variables were eliminated, thus enabling this type of analysis.

The study was also limited by the fact that it collected information on student alcohol and other drug use during the first two weeks of the fall semester. Students might need more time to form friendships and social circles that enable drinking. Therefore, measuring drinking behaviors after only two weeks could be limiting.

The generalizability of this study is also limited because of the age, race and gender of the students participating in the study. Most students in the study were 18 years of age. In

addition, the majority of the students were white and female. The generalizability of the study is also limited by the fact that this study was conducted at only one university. This university was a large, public institution. These issues, however, were addressed as delimitations during the planning of the study.

Summary of Study

This study looked at the alcohol and other drug use of first-year college students as they transitioned from high school to college. The central focus was the examination of the factors that influence first-year college student alcohol and other drug use during the first two weeks on campus. The parental factors studied were parent expectations and parent participation in an intervention during summer orientation. In addition, the study looked at student factors that included the student's gender; race; past alcohol, tobacco, marijuana, and drug use; intent to join a Greek organization; age of first alcohol consumption; quantity and frequency of alcohol use by the student during the summer prior to matriculation; student's intent to drink post-matriculation, and student's perception of parental expectations with regard to alcohol use.

Parents of first-year students were surveyed during summer orientation prior to their students' matriculation. There were 2,118 parents who participated in the survey. In addition to the survey of the parents' perceptions of their students' alcohol and other drug use and intent to use, the parents were asked about their expectations regarding their students' alcohol and other drug use. Finally, parents were placed in an experimental or control group during orientation. The control group was presented with a general alcohol and other drug presentation from the university's health center, while the experimental group received an intervention to assist parents in the creation of a plan to talk to their students about their alcohol and other drug use.

First-year students were also surveyed during summer orientation prior to matriculation. They were asked to report past alcohol and other drug use as well as intent to use alcohol upon arrival on campus. Students were also asked about their perceptions of their parents' expectations regarding alcohol use. Finally, students were asked about their age of first alcohol use. There were 1,945 students who participated in this survey.

First-year students were asked to participate in a fall survey three weeks after the first day of classes. There were 1,387 students who chose to participate in this survey. Students were asked about their use of alcohol and other drugs during the previous two weeks. In addition, students were asked whether or not their parents had discussed their expectations regarding the students' alcohol and other drug use.

Students' past use of alcohol and other drugs, intended use of alcohol, and actual use of alcohol and other drugs during the first two weeks on campus were found to be inconsistent with each other. The results showed that 59.6% of students used alcohol in the previous year when surveyed in the summer. However, only 34.7% had used in the two weeks prior to their summer orientation. The majority of students (54.3%) reported that they intended to drink; however, during the first two weeks on campus, only 44.1% of the students reported consuming alcohol.

The inconsistencies were seen not only in student alcohol use pre- and post-matriculation. These inconsistencies were also seen when comparing student use of alcohol and parental perceptions of student use. Parents perceived a lower rate of use among their students than the students actually used. While 59.6% of students actually used alcohol in the last year, 52.3% of parents perceived that their students were using alcohol. Although differences were observed, they were much less than those found in other research. Bogenschneider, Wu, Raffaelli, and Tsay

(1998) found that only one third of high school students' parents were aware of the students' alcohol use.

The research questions in this study focused on an intervention conducted with parents during summer orientation prior to their student's first year in college. It was hypothesized that parents who attended the experimental intervention would have the tools and ability to discuss their expectations of alcohol and other drug use with their students. This capacity building would carry through to an actual conversation with the students and influence the students' use during the first two weeks on campus. However, no differences were seen between the behaviors of the students whose parents attended the experimental session compared to the behaviors of students whose parents attended the control session during summer orientation.

Finally, correlation and regression analyses were conducted to assess the factors that predict quantity and frequency of alcohol use among first-year college students. There were significant factors found through these analyses. There was a positive correlation between alcohol use by students in the first two weeks on campus and the following variables: parent expectation of quantity and frequency, gender, race, past alcohol use, past drug use, past tobacco use, intent to join a Greek organization, age of first consumption, intent to drink on campus, and perceived parental expectations of alcohol use. Regression analysis results demonstrated that these factors can be used to predict student alcohol use post-matriculation. These findings demonstrate relationships between many of these factors, but more interestingly provide specific predictors of first-year student alcohol use which will now be discussed.

Summary of Significant Findings

There were five research questions associated with this study, and each yielded no significant findings. However, there were other results related to the questions that should be

noted. Specifically, there were many findings that can directly influence practice in student affairs and alcohol and other drug prevention education.

Parental Perceptions and Conversations

This study demonstrated that parents' perceptions of first-year student use in the year prior to matriculation were not consistent with the students' actual use. Parental perceptions of tobacco, alcohol, marijuana and other drug use were significantly lower than the students' use. This is consistent with findings by Shutt, Oswald & Cooper (2006). These perceptions might impact whether or not parents have a conversation with their students or frame the conversation in a very different manner. If parents perceive that the child is drinking in a low-risk way, the messages that the parents give to the student might be, "continue what you are doing because we have seen no negative outcomes." However, the student might, in fact, be using much greater quantities of alcohol. Therefore, the student hears the parents' message in a very different way. She/he might hear, "I know you are drinking a lot and that's fine with us." Boyle & Boekeloo (2006) noted that first-year college students with perceptions of parental approval of their drinking reported a greater number of problems associated with their drinking.

Although perceptions were found to differ between students and parents, the data revealed that most (62.7%) parents had already talked to their students about alcohol and other drugs prior to orientation and matriculation. This is significant because this study focused more on getting parents to have the conversation as a starting point. If parents are already having the conversation, the focus should be on the quality of the conversation rather than spending time persuading them to have it.

First-Year Student Alcohol Use

Another significant finding was that over 55% of incoming students did not use alcohol during the first two weeks of class. This was a significant finding because it demonstrates that fewer students reported using alcohol when compared to national surveys (American College Health Association, 2006). This reflects a change with the Millennial generation whom Strauss and Howe (2003) described as wanting more regulated environments and as being focused on grades and performance. Martin and Tulgan (2001) noted that these students expect rules to be enforced. These finding of less alcohol might be seen as an example of how Millennials behave in both a pre-collegiate and collegiate environments.

Not only did the majority of students not use in the last year, but this study found that a student's intent to use alcohol was inconsistent with his/her actual use after arriving on campus. There were 54.3% of the students who intended to drink; however, only 44.1% actually used alcohol during the first two weeks of classes. This contrasts some of the literature which has shown that drinking increases after arriving on campus (Baer, Kivlahan, & Marlatt, 1995; Harford & Muthén, 2001; Leeman & Wapner, 2001; Leibsohn, 1994; Lo & Globetti, 1995). This has several implications, including a call for an examination of the impact of campus climate on alcohol use. The Task Force of the National Advisory Council for the NIAAA (2002) noted that environmental factors such as policy enforcement and messages received from communities on alcohol and other drugs could promote or discourage high-risk use. The results of this study demonstrated that pro-alcohol environmental factors on this particular campus did not influence the students' use because they were successful in following through with their intent to not use alcohol. In fact, there were more students who abstained from alcohol use than intended to be abstainers. It is critical to examine the impact of the environmental changes made on this campus

to assess their impact. They include changes in policy and enforcement after the high-profile death of the student the preceding spring.

Factors that Influence Alcohol Use

This study included a model that was proposed to examine factors that could influence alcohol use of first-year students. The results demonstrated that there were correlations between the students' quantity and frequency of alcohol use during the first three weeks of school and several factors. These factors included parent expectation of quantity and frequency, gender, race, past alcohol use, past drug use, past tobacco use, intent to join a Greek organization, age of first consumption, intent to drink on campus, and perceived parental expectations of alcohol use. When examining these results in terms of the influence that parents had on student alcohol use, it is especially important to note that the actual parental expectations of alcohol use and the students' perceptions of these expectations were correlated for both quantity and frequency at .435 and .360 respectively ($p < .01$). The relationship demonstrated that if parents expect their students to use no alcohol, the students had an accurate perception of these expectations. The results demonstrated that a student's behavior is influenced by actual parental expectation. This is consistent with the findings of Foley, Altman, Durant, & Wolfson (2004) who established that parental approval of alcohol use was highly correlated with adolescent drinking.

Regression analysis also demonstrated that many factors predicted student alcohol use. These factors included parent expectation of quantity and frequency, gender, race, past alcohol use, past drug use, past tobacco use, intent to join a Greek organization, age of first consumption, intent to drink on campus, and perceived parental expectations of alcohol use. When examining the dependent variable, number of drinks consumed the last time the student drank, 61.8% of the variance of number of drinks could be accounted for by the linear combination of the

individual's predictors. In addition, 65.8% of the variance of the number of days alcohol was consumed during the first two weeks of the fall semester could be accounted for by the linear combination of individual predictors. This means that there are specific variables that university administrators, health educators and parents can assess to predict a student's use. Students can then be targeted for specific interventions given these predictors.

The examination of the predictor variables with both dependent variables yielded separate results. Although both models predicted alcohol use, the individual predictors that were significant within the model varied. When examining the number of days alcohol was consumed, there were six variables that were significant in the model, including student perception of parental expectations of frequency of use; intended quantity of drinks; intended frequency of use; intent to join a Greek organization; use in the last year; and parent expectations of frequency of use. Only two variables, intended quantity of drinks and quantity consumed last time drunk, were significant in the model with the dependent variable of the number of drinks last time drunk. This demonstrated the differences in the variables even if they both involved student alcohol use behaviors.

Implications for Practice

This study adds important data to the literature on first-year student alcohol and other drug use. As such, it provides a better picture of health behaviors of college students. Health educators can use these results to design prevention strategies that reach non-users to support their non-use, while also reaching out to users to help them not engage in high-risk use. Finally, health educators and campus administrators should target high-risk users with specific strategies that will influence high-risk behaviors.

It is critical that college administrators and health centers conduct ongoing assessments of incoming students. This is the only way that institutions will know what is working and not working when it comes to their prevention efforts. For example, an institution might see reductions in students' alcohol and other drug use on campus that can be attributed to changes made on campus. However, if they are not assessing incoming student behavior, they might be missing the fact that it is not their prevention efforts at all; it is a changing student population with lower-risk behaviors. Resources would therefore be wasted on efforts that are not efficacious.

The American Medical Association's Council on Science and Public Health released a report indicating that institutions of higher education are overburdened by many mental health issues, including alcohol and other drug-related problems (American Medical Association, 2006). It created recommendations that included policy and resource allocation changes that could impact these problems. Institutions might not be able to pursue them, however, without taking money from already taxed budgets. Institutions therefore miss opportunities to provide critical programs and services because resources are being used on programming that is having little impact on student behavior.

Engaging parents in alcohol and other drug prevention efforts on college campuses is also critical. However, this study demonstrated that most parents were already talking to their students about the students' alcohol and other drug use. Campuses must assess how to support the parents who are already having the conversations with their students. More importantly, campus administrators and student affairs professionals must ascertain which parents enable their students to use alcohol in a high-risk way. The same strategies that are used to reach students who are non-users, low-risk users, and high-risk users, can be considered when reaching out to

parents who have a wide range of expectations. Parents who expect their students not to drink should be provided with resources to support the clear communication of consistent expectations. This is also true for parents that expect their students to use in a low-risk way. Parents who accept and encourage high-risk alcohol use need more resources and education. Unlike for those who only need support, there should be earlier outreach to those parents who enable their students.

Using the Health Belief Model described by Janz, Champion, and Strecher (2002), parents must perceive susceptibility and severity of behaviors before they can take action. That is, they place a value of an outcome from a behavior and perceive the likelihood that that outcome will happen. Although this model examines an individual's view of susceptibility and severity to take action, parents must understand these issues before they can take the action of establishing low-risk expectations for their children. This study demonstrated that parents with expectations reflecting higher levels of alcohol use have children who use more alcohol. Parents can only be open to receiving resources on having a positive conversation about alcohol use with their children when they understand the susceptibility and severity of the negative outcomes from their students' drinking. The challenge becomes identifying the parents who have no expectations or have expectations that are considered high-risk.

Health educators and campus administrators should take a comprehensive approach when presenting resources to parents. This includes raising awareness among the parents of all the issues related to alcohol and other drugs, even when many are already discussing them with their students. This could be achieved by providing parents with very real issues that students face because of their drinking and drug use, such as examples of specific issues and events that parents can hear and be challenged to think through. At the same time, parents who understand

their students' susceptibility and the severity of the potential problems can be given resources to support what they are already doing. In a sense, campuses must challenge some parents to action by providing the reality of problems on campus, while providing support for those who are already doing encouraging no use or low-risk use with their students.

Parents, health educators and campus administrators should also examine the issue of past alcohol use and its predicting of post-matriculation alcohol use. Administrators and health educators should engage parents in looking for signs of alcohol use and discussing this use with their students. In addition, parents should be provided consistent messages to give to their students throughout secondary education. Messages such as "drink responsibly" and "drink moderately" give no specific information on quantities and frequencies of alcohol use that are considered low-risk. Consistent messages from parents and university officials are critically important.

It is apparent that the two dependent variables, quantity of use and frequency of use, are different given the results of this study. This is an important issue to consider. Health educators must understand that there are various influences on a student's alcohol use. This study demonstrated that it is not appropriate to focus only on the quantity of alcohol that is being consumed. Whether they discuss moderate, responsible, or low-risk use, health educators must be prepared to both define use by quantity and frequency and address specific factors that predict quantity and frequency of alcohol use. They must also engage parents in this discussion. This study demonstrated that parental expectations predict frequency of use but are not as strong in predicting quantity of alcohol consumed by their students.

Recommendations for Future Studies

Further studies are needed to better understand the impact that parents have on first-year student alcohol and other drug use. One of the limitations of this study was that parenting and communication styles were not assessed. Future studies could analyze parenting types and their relationships to alcohol and other drug use, utilizing the work of Baumrind (1991). She found that different parenting styles have an impact on adolescent use of illegal substances. Parents who were authoritative were found to have greater success in preventing illegal use of alcohol and other drugs than those who were more passive. It is important to assess whether the impact of these parenting styles carries over to college student behavior.

Studies could also be conducted on campus environmental influences on student alcohol and other drug use. The NIAAA (2002) discussed the influence that the environment has on college student use. However, no studies have been conducted to assess students' intent to use prior to arriving on campus and to compare this to their actual use post-matriculation, given specific environmental factors such as campus policies, mixed messages, and alcohol license density. The correlation between environmental factors and student use should be analyzed further.

The experiment conducted in this study could also be altered to assess parental influence on use. The amount of time that was provided to educate the parents could be increased to provide more instruction and information for the parents. In addition, copies of the plans that parents create during these sessions could be entered into the model to better assess parental intent to discuss expectations and actual student behavior. It is clear that there are many factors that influence student alcohol and other drug behavior; therefore, a more comprehensive model is needed.

Other changes in this study could include cross sectional studies of other universities to assess the generalizability of this study. In addition, these studies should increase the amount of time between the beginning of the first semester and the distribution of the survey. This could range anywhere from six weeks after the beginning of the semester until the end of the semester. If such a study is conducted, it would also be important to establish it in a way that it can be replicated over time. It is not only important to assess incoming student behaviors, it is also important for institutions to see if there are generational changes or changes for those students during their enrollment.

Finally, further research needs to be conducted to establish an instrument that scores student alcohol use and can predict use during the first year. This study provided a range of predictors for first-year student alcohol use, but it was only a starting point. These variables must be assessed with other variables such as parenting style, parent use, home location, grades, and other psycho-social developmental factors. If such an instrument is developed, campuses will be able to incorporate it into computer-based prevention programs that can provide the appropriate prevention education based on a student's score. Campuses are beginning to utilize technology to provide prevention education and this type of instrument could revolutionize how campus resources are used to prevent alcohol and other drug use.

Chapter Summary

The impact of an intervention session with parents of incoming first-year college students was examined in this study. The intervention did not have an impact on student behavior post-matriculation. However, the study did support the literature regarding parental influence on student drinking. In addition, several predictors of student drinking were identified. The findings described in this study have implications for college administrators, health educators, parents and

students. Recommendations were made based on this research and others could be suggested after further research is conducted.

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APPENDIX A

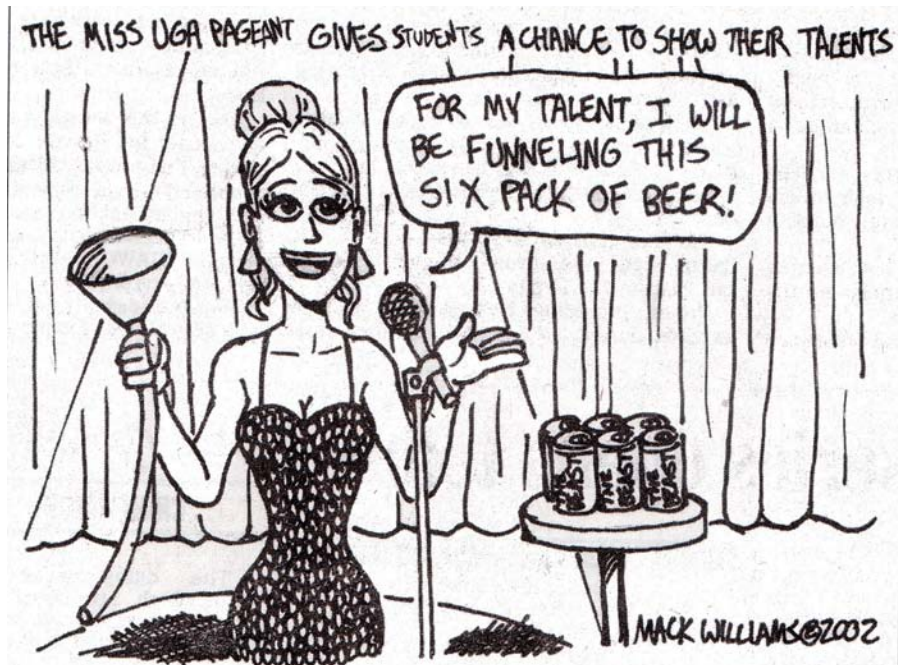
PARENT CONTROL GROUP POWERPOINT PRESENTATION

Alcohol, Drugs & The University of Georgia



**John Fontaine Jr. Center for
Alcohol Awareness and Education**





Red & Black January 2002

LAST CALL
Est. 1968
420 EAST CLAYTON ST.

COLLEGE NIGHT

\$2 PINTS (WELL & DRAFT)
\$2 FROZEN DRINKS
\$2 SHOOTERS & JAGER BOMBS
\$4 PITCHERS

The Whiskey Bar
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Bourbon Street
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2nd Floor Open!

Monday:
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\$2 Tuesdays:
\$2 Pitchers & Well Liquor Pints

Wednesday Ladies Night:
\$1.00 Frozen Drinks, \$1.00 Draft for Guys
\$1.00 Champagne, \$1.00 Well Drinks

Thursday:
\$3.00 Well Liquor Pints
\$8.00 64oz. Fishbowls

Power Hour *Every night 10-11pm*
\$1.00 Well Liquor Drinks & Domestic Draft

UPSTAIRS AVAILABLE FOR SOCIALS ANY NIGHT

**Your parents would
be so disappointed.**



We can help.

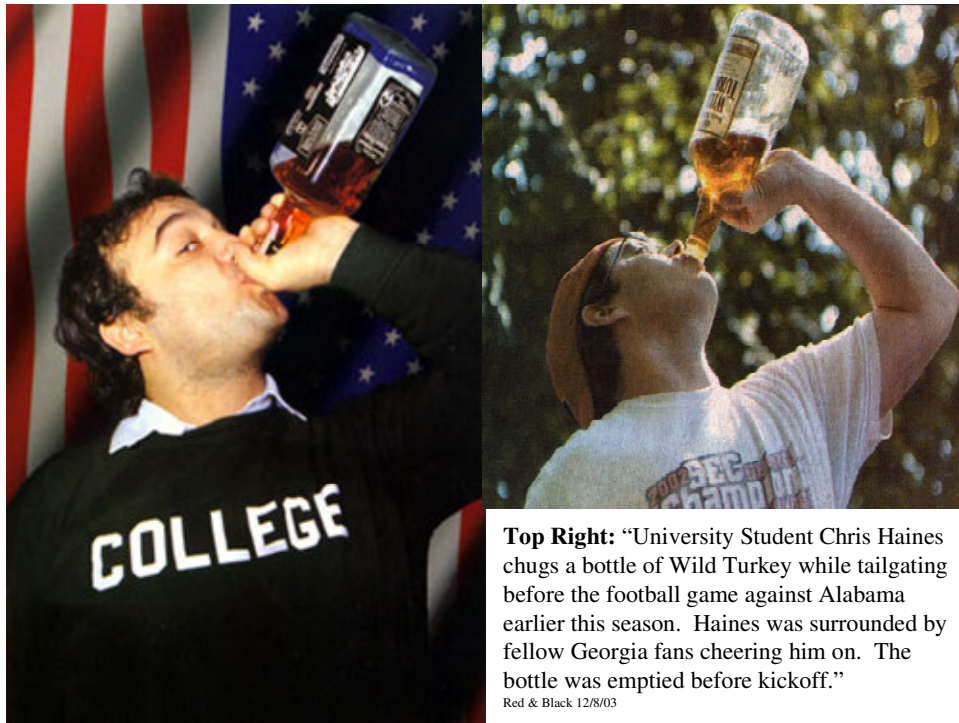
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Top Right: “University Student Chris Haines chugs a bottle of Wild Turkey while tailgating before the football game against Alabama earlier this season. Haines was surrounded by fellow Georgia fans cheering him on. The bottle was emptied before kickoff.”

Red & Black 12/8/03



60.6%

**of UGA students report
Binge Drinking
at least once in the
previous two weeks.**

Risks Associated

with Alcohol and Drug Use

Health

- Mental
- Physical
- Emotional
- Spiritual
- Alcoholism

Legal

- DUI
- Minor in Possession
- Fake I.D.
- Open Container
- University Policies

Social

- Behavior Changes
- Relationships
- Sexual Assault
- Self Respect
- Decision Making

Impairment

- Decision Making
- Fights
- Job/School
- Accidents
- Crashes

Risks Associated

with Alcohol and Drug Use

Health

65% of UGA students report being nauseated or vomiting as a result of alcohol use.

Legal

35.9% of UGA students report driving under the influence of alcohol in the last year.

Social

12.6% of UGA students report being taken advantage of sexually while under the influence of alcohol.

Impairment

52.6% of UGA students report doing something they later regret because of their alcohol use.

Impairment Risks and Academics

SUN	MON	TUE	WED	THU	FRI	SAT
Calendar of Impaired Abstract Thinking						1 Keg Party
2 Impaired	3 Impaired	4 Impaired	5 Impaired	6 Impaired	7 Impaired	8 Impaired
9 Impaired	10 Impaired	11 Impaired Calc Quiz	12 Impaired	13 Impaired	14 Impaired	15 Impaired
16 Impaired	17 Impaired	18 Impaired	19 Impaired Chem Test	20 Impaired Paper Due	21 Impaired	22 Impaired
23 Impaired	24 Impaired	25 Impaired	26 Impaired	27 Impaired Calc Test	28 Impaired	29 Impaired
30 Impaired	31					

Abstract Thinking:

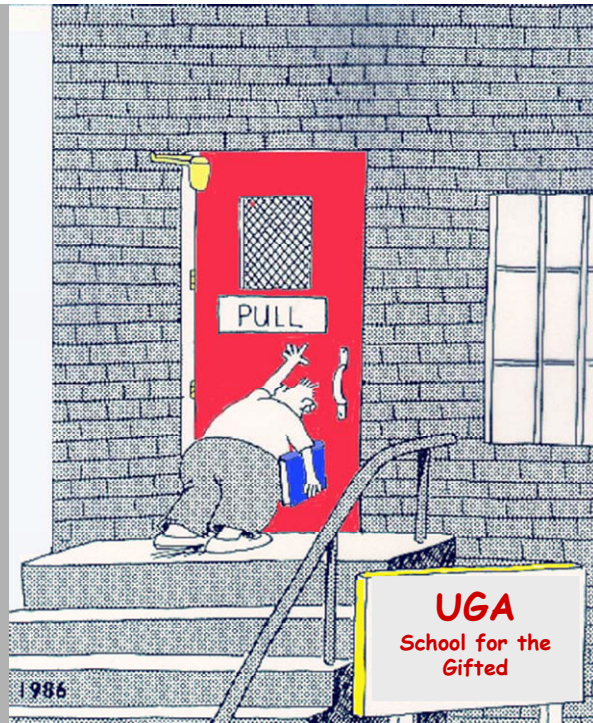
The ability to understand ideas, concepts, & meanings of words; To understand relationships

Impairment Risks and Academics

- **53.5%** at UGA reported missing a class because of alcohol use
- **48.3%** reported experiencing memory loss because of alcohol use
- **Not necessary to have a “substance use disorder” to experience negative outcomes**

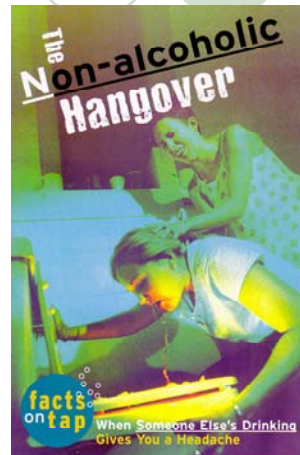
They can
send me
to college
but they
can't
make me

THINK!



Second Hand Effects

- Insulted or humiliated
- Pushed, hit or assaulted
- "Baby-sit" drunk student
- Serious argument/quarrel
- Unwanted sexual advance
- Interruptions of sleep/study
- Sustained property damage





Enabling

Any response people make to someone's high risk choices that allows him/her to keep making those choices without much sense of risk.

Denial
Bailing out
Covering up
Making excuses
Offsetting consequences
Encouraging high risk use
Taking over responsibilities



Parent Perceptions-Student Use

A look at incoming students AOD use and their parents' perceptions of student AOD use

	<u>Parents Perceptions</u>	<u>Student Use</u>
Student use of alcohol in the last year	46.3%	68.1%
Student use of marijuana in the last year	6.8%	22.0%
Student use of other drugs in the last year	1.2%	5.1%

What Can Parents do?

RIGHT NOW...

- **Communicate the facts regarding ATOD use**
 - **Know the social scene at UGA and talk to your student about it**
 - **Be a good example/role model**
 - **Continue the dialog and listen to your student**
 - **Set clear and realistic expectations regarding academics, finances, and ATOD use**
-

Parental Expectations

The 2004 Summer Orientation Survey asked students what they perceived their parents' expectations were regarding alcohol use.

Students that had higher perceived parental expectations about alcohol use:

- **Reported less alcohol use in the last year**
 - **Intended to use less alcohol at UGA**
-

Conversation Starters:

- ✓ **Have you decided whether or not to drink, smoke or use other drugs at UGA?**
- ✓ **How can I help you with that decision?**
- ✓ **Let's talk about the pros, cons, and risks.**

YOU CALL THE SHOTS!

ZERO		<p>0 ALCOHOL Especially if you are sick, using medications or other drugs, pregnant, under 21, chemically dependent, driving, or have a strong family history of alcoholism.</p>
ONE		<p>1 DRINK PER HOUR Your body can metabolize less than one drink per hour.</p>
THREE		<p>NO MORE THAN 3 DRINKS ON ANY DAY & NEVER 3 DRINKS DAILY</p>

Reduce your legal, impairment and health risks related to alcohol, **follow 0-1-3!**

One average drink is 1 oz. 100 proof liquor, a 12 oz. beer, or a 4-5 oz. glass of wine.

If your student intends NOT to drink, ask:

- ✓ **What will you do if you find yourself at a party with only alcohol to drink?**
 - ✓ **What will you say if someone asks you why you are not drinking?**
 - ✓ **What will you do if someone offers an other drug to you?**
 - ✓ **What will you do if you are asked to "baby-sit" someone who is very drunk? How will you know if he/she has alcohol poisoning?**
-

Once at UGA, ask:

- ✓ **What do you think of the classes you are taking?**
- ✓ **How are you getting involved on campus?**
- ✓ **Are you meeting many new people?**
- ✓ **What is the social scene like, what do you do, where do you go to have fun?**
- ✓ **Let's look at your expenses to see if your budget is working out.**
- ✓ **What is different from what you expected?**
- ✓ **What challenges have you faced?**

KEEP ASKING QUESTIONS!

Campus Initiatives

- ✓ **Prevention Education:**
 - ✓ Required online alcohol education course
 - ✓ Peer education and health advocacy (ASAP)
 - ✓ Online self-assessments
- ✓ **Intervention programs**
- ✓ **Counseling programs**
- ✓ **Community/Campus Coalition**
- ✓ **AOD Policies**
 - ✓ Parental notification policy
 - ✓ Persons charged with underage possession taken to jail
 - ✓ 2nd offense while on probation = suspension

For more information:



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ATOD Health Educator
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www.uhs.uga.edu/parents

APPENDIX B

PARENT EXPERIMENTAL GROUP PRESENTATION SCRIPT

Introduction

First, we hope that you have taken the opportunity to fill out the survey given to you when you arrived. Adrienne will be around to pick those surveys up from you.

Today we have an opportunity to speak to you all about alcohol and other drugs on campus. In the past, we have provided a lot of information to parents but did not give them much opportunity to process it or think about how the information could be used. We also know that you will be given information at other sessions on what the University of Georgia is doing to prevention ATOD problem on campus. So, we would like to take this limited time to do three things:

1. Give you a brief overview of alcohol and drug statistics at UGA including behaviors, negative outcomes from those behaviors and second hand effects.
2. Provide you with tips on how to talk to your students about ATOD issues.
3. Give you an opportunity to create a plan to help you talk to your students. Why? Research has shown that parents have an impact on the behavior of their college students. UGA has demonstrated this in a 2004 research initiative where student perceptions of their parents having high expectations resulted in less alcohol use in the last year and the intent to use at UGA was lower.

Overview

Pass out sheet

We know that many of our students are using alcohol and other drugs. However, these statistics are not different from other institutions around the country. You can see, for example, that 60% of our student are binge drinkers, which is defined as a women that consumes 4 drinks or a man that consumes 5 drinks in one sitting in the last two weeks. This is alarming not only because of the quantity but more importantly because of the negative outcomes including:

Performed poorly on a test/other project	33.4%
Had memory loss	48.2%
Done something I later regretted	52.5%
Missed a class	53.4%

You can also see the second hand effect on your sheet. So, it isn't only about the drinkers.

You can also see the differences in parent's perceptions of use of incoming student and actual use. This was taken from the 2004 survey which is being duplicated this year.

This was a brief overview of the problem and information to demonstrate that we are all part of the solution. So, how can you engage your students in making low-risk choices.

Tips

We all know that we can enable students to drink and use drugs. From faculty joking about everyone being hung over in class to parents bailing their students out of jail, the message received by the student is that it is okay to drink and use drugs. So, we always have to be aware of our enabling behaviors.

We have provided you with several tips on how to communicate with your students. These include general things to remember, in addition to

Conversation starters:

- Have you decided whether or not to drink, smoke or use other drugs at UGA?
- How can I help you with that decision?
- Let's talk about the pros, cons, and risks.

In order to have a consistent message, you may use the 0-1-3 guideline seen on the third page of your handout. It is important to understand that using the terms moderate and responsible have little meaning. For some, it could mean not drinking for others it could mean drinking 8 drinks but not driving. The 0-1-3 guideline quantifies what is low risk.

You will also see the points you will need to talk about if your student intends not to drink. They need to be thinking about what to do if students around them are making other choices about alcohol and other drugs. The sheet provides you will several questions to ask.

Plan

We are now going to give you the opportunity to create a plan to talk to your student about his/her alcohol and drug use at UGA. This plan provides you with an outline on the point you would like to make before your student moves to campus.

We know that you may not be finished with your plan, however, we want to point out that the way that you present your expectations to your student is as important as the expectations themselves. So, keep in mind the points on the second page of the plan the encourage you to

- Listen
- Be honest
- Pick a good time to talk
- Use open ended questions
- Avoid debate and encourage learning
- Show respect and appreciation
- Stay focused on the issue
- Agree to discuss issues later if the conversation emotional or punitive

We hope that you took the opportunity to get another parents contact information so you can have your own support system. It definitely takes a village to create a positive, low-risk environment. This is one reason that the university is not only working with faculty, staff and students on the issue, but it is also engaging the community, parents and alumni to get involved.

If you have questions or concerns, please feel free to contact our health educators, Erin and Mike in the John Fontaine Center for Alcohol Awareness and Education. If you did not have the opportunity to turn in your survey, Adrienne will be in the back of the room to collect them as you leave after the next speakers is finished.

APPENDIX C

ALCOHOL AND OTHER DRUG FACT SHEET

UGA Alcohol and Other Drug (AOD) Facts for Parents 2006

AOD Statistics

UGA student AOD use in the last year

Alcohol	88.9%
Marijuana	36.2%
Cocaine	6.7%
Binge Drink in last two weeks	60.6%
Average number of drinks per week	7.95 drinks

Negative Outcomes

It is important to consider not only the quantity and frequency of AOD use, but also the many negative outcomes that occur. Below you will find the percentage of students that experienced various negative outcomes in 2005.

Had a hangover	74.8%
Performed poorly on a test/other project	33.4%
Had memory loss	48.2%
Done something I later regretted	52.5%
Trouble with police or other authorities	14.7%
Got nauseated or vomited	65.0%
Driven a car while under the influence	35.9%
Missed a class	53.4%
Have been taken advantage of sexually	12.6%
Been hurt or injured	18.6%

Secondhand Effects

Not all students use alcohol or other drugs. However, many students are impacted by others' use. Here are examples of secondhand effects reported by UGA students in 2005.

Interrupts studying	39.7%
Messes up my space	36.0%
Makes me feel unsafe	15.1%
Prevents enjoyment of activities	20.3%
Adversely affects group activity	7.9%
Interferes in other ways	34.6%

Parent Perception of Use Verses Actual First Year Student Use

Many incoming students are already using alcohol, tobacco and other drugs. One important prevention tool is increasing awareness among parents, so that they are empowered to talk to

their students. In 2004, UGA found there was a large discrepancy between parents' perceptions of student AOD use and the student's actual use. Here are the results:

	Incoming Students Actual Use	Parent Perception of Use
Alcohol use	68.1%	46.3%
Marijuana use	22.0%	6.8%
Other Drug	5.1%	1.2%

Enabling

Enabling is any response people make to someone's high risk choices that allows him/her to keep making those choices without much sense of risk. Everyone has a role in creating an environment, which does not enable the high-risk use of alcohol and other drugs. Enabling can include:

Offsetting consequences	Encouraging high risk use
Encouraging high risk use	Taking over responsibilities
Taking over responsibilities	Covering up
Denial	Making excuses
Bailing out	

Critical Points for Parents

The 2004 Summer Orientation Survey asked students what they perceived their parents' expectations were regarding alcohol use. Students who had higher perceived parental expectations about alcohol use:

- Reported less alcohol use in the last year
- Intended to use less alcohol at UGA

Parents DO impact student AOD use!

So, how do you have a conversation with your students that will have an impact? *Remember the following points:*

- Communicate the facts regarding ATOD use
- Know the social scene at UGA and talk to your student about it
- Be a good example/role model
- Continue the dialog and listen to your student
- Set clear and realistic expectations regarding academics, finances, and ATOD use (The University of Georgia utilizes the 0-1-3 guideline, which you may view on the last page of this handout).

Conversation starters:

- Have you decided whether or not to drink, smoke or use other drugs at UGA?
- How can I help you with that decision?
- Let's talk about the pros, cons, and risks.

If your student intends not to drink, ask:

- What will you do if you find yourself at a party with only alcohol to drink?
- What will you say if someone asks you why you are not drinking?
- What will you do if someone offers an other drug to you?
- What will you do if you are asked to "baby-sit" someone who is very drunk?
- How will you know if he/she has alcohol poisoning?

Once at UGA, ask:

- What do you think of the classes you are taking?
- How are you getting involved on campus?

- Are you meeting many new people?
- What is the social scene like, what do you do, where do you go to have fun?
- Let's look at your expenses to see if your budget is working out.
- What is different from what you expected?
- What challenges have you faced?

Campus Initiatives and Resources

- Required alcohol education course
- Parental notification
- Intervention programs
- Counseling programs
- Prevention education
- Prevention education campaigns
- Community/Campus Coalition

Campus Resources

University of Georgia Health Center
Health Promotion Department
www.uhs.uga.edu/atod

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Intervention Specialist
706-542-8690
mfriedline@uhs.uga.edu

YOU CALL THE SHOTS!

ZERO		0 ALCOHOL Especially if you are sick, using medications or other drugs, pregnant, under 21, chemically dependent, driving, or have a strong family history of alcoholism.
ONE		1 DRINK PER HOUR Your body can metabolize less than one drink per hour.
THREE		NO MORE THAN 3 DRINKS ON ANY DAY & NEVER 3 DRINKS DAILY

Reduce your legal, impairment and health risks related to alcohol, **follow 0-1-3!**

One average drink is 1 oz. 100 proof liquor, a 12 oz. beer, or a 4-5 oz. glass of wine.

APPENDIX D

TALKING TO YOUR STUDENTS ABOUT ALCOHOL AND OTHER DRUGS

Talking to Your Students about Alcohol and Other Drugs: The Key to Prevention

By having a conversation with my student, I want my student to...

I plan to have a conversation with my student about alcohol and other drug use on this date: _____

MY EXPECTATIONS

I expect my student to use:

Alcohol (never, once/month, once/week, etc.): _____

Tobacco (never, once/month, once/week, etc.): _____

Other Drugs (never, once/month, once/week, etc.) _____

I expect my student to drink no more than _____ drinks per occasion if he/she drinks.

While at UGA, I also expect my student

to: _____

I want my student to know these facts about alcohol and other drugs* (you may want to include health and academic risks):

* Remember to include UGA's policies on alcohol and other drugs:

- ✓ Parents are notified if a student under 21 violates alcohol/drug policies
- ✓ Students charged with underage possession are taken to jail
- ✓ If a student has a 2nd offense while on probation, he/she will be suspended

Possible negative responses I could receive during my conversation include:

Points to make if I receive this negative feedback:

Conversation starters:

- Have you decided whether or not to drink, smoke or use other drugs at UGA?
- How can I help you with that decision?
- Let's talk about the pros, cons, and risks.
- These are my expectations...

If your student intends not to drink, ask:

- What will you do if you find yourself at a party with only alcohol to drink?
- What will you say if someone asks you why you are not drinking?
- What will you do if someone offers another drug to you?
- What will you do if you are asked to "baby-sit" someone who is very drunk?
- How will you know if he/she has alcohol poisoning?

Remember to:

- Listen
- Be honest
- Pick a good time to talk
- Use open ended questions
- Avoid debate and encourage learning
- Show respect and appreciation
- Stay focused on the issue
- Agree to discuss issues later if the conversation emotional or punitive

I will have another conversation with my student on this date after my student begins classes at UGA: _____

Support is important. List another parent at orientation you can contact to talk about your discussion with your student.

Name: _____

E-mail: _____

Phone number: _____

University of Georgia Alcohol and Other Drug Program Website:
www.uhs.uga.edu/atod

APPENDIX E

PARENT/GUARDIAN QUESTIONNAIRE

Parent/Guardian Questionnaire: Orientation 2006

Greetings!

In an effort to keep abreast of trends in the use of alcohol and other recreational drugs, colleges and universities periodically distribute surveys concerning students' alcohol and other drug consumption. This survey extends these efforts to incoming students. This survey is a useful tool for learning about campus and nationwide trends and ultimately helpful to undergraduates.

This is the survey that is being distributed during orientation and is part of a research project entitled "First Year Student Alcohol and Drug Use" conducted by Mr. Michael D. Shutt a doctoral candidate in the Department of Counseling and Human Development at the University of Georgia. His advisor for this project is Dr. Diane Cooper from the Department of Counseling and Human Development, University of Georgia, 706-542-1812. This research may be published in the future using the aggregated data from the surveys.

The survey should take approximately 5 minutes to complete. It should be noted that the questionnaire deals with the use of illegal drugs and/or underage drinking. **This survey is completely anonymous. Your participation is voluntary. You can choose not to participate and can stop taking part at any time without giving any reason, and without penalty. You can skip any questions that you do not wish to answer.**

There are no foreseeable or known risks for your participation in this research. There is a slight risk of emotional distress or discomfort for you if you become concerned about your own use of alcohol, tobacco or other drugs, or you become concerned about another person's use. To help alleviate these risks, alcohol, tobacco and other drug education and intervention resources will be made available to you. In addition, an alcohol, tobacco and other drug health educator will be available from the University Health Center to answer any questions or provide further assistance.

Please do not write your name or other identifiers on this survey.

Please complete one survey per incoming student (i.e. If two or more parents/guardians are attending orientation, only one survey should be completed.).

Any questions or comments may be addressed to Michael Shutt, 706-542-4120.

Thank you for your help,

Michael D. Shutt
Doctoral Candidate
Department of Counseling and Human Development
706-542-4160

Please fill survey out now, then detach and keep this letter!

Additional questions or problems regarding your rights as a research participant should be addressed to the IRB chairperson in the Human Subjects Office at the University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411. Telephone: (706) 542-3199; E-Mail Address: IRB@uga.edu.

1. Within the last year about how often has your student used...

Tobacco (Check only one)

<input type="checkbox"/> Did not use	<input type="checkbox"/> Once a month	<input type="checkbox"/> 3 times a week
<input type="checkbox"/> Once a year	<input type="checkbox"/> Twice a month	<input type="checkbox"/> 5 times a week
<input type="checkbox"/> 6 times a year	<input type="checkbox"/> Once a week	<input type="checkbox"/> Every day

Alcohol (Check only one)

<input type="checkbox"/> Did not use	<input type="checkbox"/> Once a month	<input type="checkbox"/> 3 times a week
<input type="checkbox"/> Once a year	<input type="checkbox"/> Twice a month	<input type="checkbox"/> 5 times a week
<input type="checkbox"/> 6 times a year	<input type="checkbox"/> Once a week	<input type="checkbox"/> Every day

Marijuana (Check only one)

<input type="checkbox"/> Did not use	<input type="checkbox"/> Once a month	<input type="checkbox"/> 5 times a week
<input type="checkbox"/> Once a year	<input type="checkbox"/> Twice a month	<input type="checkbox"/> Every day
<input type="checkbox"/> 6 times a year	<input type="checkbox"/> Once a week	
	<input type="checkbox"/> 3 times a week	

Other illegal drugs (Check only one)

<input type="checkbox"/> Did not use	<input type="checkbox"/> Once a month	<input type="checkbox"/> 3 times a week
<input type="checkbox"/> Once a year	<input type="checkbox"/> Twice a month	<input type="checkbox"/> 5 times a week
<input type="checkbox"/> 6 times a year	<input type="checkbox"/> Once a week	<input type="checkbox"/> Every day

2. If your student plans to drink alcohol during his/her first year at UGA, how often do you think he/she will drink (check only one)?

<input type="checkbox"/> He/she does not plan to drink	<input type="checkbox"/> Once a month	<input type="checkbox"/> 3 times a week
<input type="checkbox"/> Once a year	<input type="checkbox"/> Twice a month	<input type="checkbox"/> 5 times a week
<input type="checkbox"/> 6 times a year	<input type="checkbox"/> Once a week	<input type="checkbox"/> Every day

3. If your student plans to drink alcohol during his/her first year at UGA, what would be the average number of drinks he/she would consume each occasion (fill in only one)?

He/she does do not plan to drink
 (Number of drinks)

4. What expectations do you have of your student as far as alcohol use during his/her first year at UGA (Check only one)?

I expect my student not to drink
 It is okay for my student to drink once during the year
 It is okay for my student to drink 6 times during the year
 It is okay for my student to drink once a month
 It is okay for my student to drink twice a month
 It is okay for my student to drink once a week
 It is okay for my student to drink 3 times a week
 It is okay for my student to drink 5 times a week
 It is okay for my student to drink every day

5. What expectations do you have of your student as far as the maximum number of alcoholic drinks he/she consumes on any one occasion during his/her first year at UGA?

_____ Drinks (enter the maximum number of drinks)

_____ I expect my student not to drink

6. Have you had a conversation with your student about your expectations regarding his/her alcohol, tobacco and other drug use while at UGA (Check only one)?

_____ Yes

_____ No

7. Do you plan on having a conversation with your student about your expectations regarding his/her alcohol, tobacco and other drug use while at UGA (Check only one)?

_____ Yes

_____ No

8. Sex of your student (Check only one)

_____ Male

_____ Female

9. Ethnic origin of your student (Check only one)

_____ American Indian/Alaskan Native

_____ Asian/Pacific Islander

_____ Black (non-Hispanic)

_____ Hispanic/Latino/a

_____ White (non-Hispanic)

_____ Multiracial

_____ Biracial

_____ Other

10. The age of your student? _____

11. To match your survey with your child's surveys, please provide the following information:

Day of the month your student was born (1-31): ____ ____

Five digits of your student's home zip code (e.g. 40733): ____ ____ ____ ____ ____

First letter of your student's middle name* (e.g. A, B, C, etc.): _____

*Use the first letter of the first middle name if your student has more than one middle name. Leave blank if your student does not have a middle name.

APPENDIX F

FIRST-YEAR STUDENT QUESTIONNAIRE: ORIENTATION 2006

First Year Student Questionnaire: Orientation 2006

Greetings!

In an effort to keep abreast of trends in the use of alcohol and other recreational drugs, colleges and universities periodically distribute surveys concerning students' alcohol and other drug consumption. This survey extends these efforts to incoming students. This survey is a useful tool for learning about campus and nationwide trends and ultimately helpful to undergraduates.

This is the survey that is being distributed during orientation and is part of a research project entitled "First Year Student Alcohol and Drug Use" conducted by Mr. Michael D. Shutt a doctoral candidate in the Department of Counseling and Human Development at the University of Georgia. His advisor for this project is Dr. Diane Cooper from the Department of Counseling and Human Development, University of Georgia, 706-542-1812. This research may be published in the future using the aggregated data from the surveys.

The survey should take approximately 5 minutes to complete. It should be noted that the questionnaire deals with the use of illegal drugs and/or underage drinking. **This survey is completely anonymous. Your participation is voluntary. You can choose not to participate and can stop taking part at any time without giving any reason, and without penalty. You can skip any questions that you do not wish to answer.**

There are no foreseeable or known risks for your participation in this research. There is a slight risk of emotional distress or discomfort for you if you become concerned about your own use of alcohol, tobacco or other drugs, or you become concerned about another person's use. To help alleviate these risks, alcohol, tobacco and other drug education and intervention resources will be made available to you. In addition, an alcohol, tobacco and other drug health educator will be available from the University Health Center to answer any questions or provide further assistance.

Please do not write your name or other identifiers on this survey.

You must be at least 18 years old to complete this survey.

All individuals that complete this survey and the follow-up survey in the fall will be eligible to win a \$100 gift certificate from the University Bookstore.

Any questions or comments may be addressed to Michael Shutt, 706-542-4120.

Thank you for your help,

Michael D. Shutt
Doctoral Candidate
Department of Counseling and Human Development
706-542-4160

Please fill survey out now, then detach and keep this letter!

Additional questions or problems regarding your rights as a research participant should be addressed to the IRB chairperson in the Human Subjects Office at the University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411. Telephone: (706) 542-3199; E-Mail Address: IRB@uga.edu.

1. Within the last year about how often have you used...

Tobacco (Check only one)

<input type="checkbox"/> Did not use	<input type="checkbox"/> Once a month	<input type="checkbox"/> 3 times a week
<input type="checkbox"/> Once a year	<input type="checkbox"/> Twice a month	<input type="checkbox"/> 5 times a week
<input type="checkbox"/> 6 times a year	<input type="checkbox"/> Once a week	<input type="checkbox"/> Every day

Alcohol (Check only one)

<input type="checkbox"/> Did not use	<input type="checkbox"/> Once a month	<input type="checkbox"/> 3 times a week
<input type="checkbox"/> Once a year	<input type="checkbox"/> Twice a month	<input type="checkbox"/> 5 times a week
<input type="checkbox"/> 6 times a year	<input type="checkbox"/> Once a week	<input type="checkbox"/> Every day

Marijuana (Check only one)

<input type="checkbox"/> Did not use	<input type="checkbox"/> Once a month	<input type="checkbox"/> 3 times a week
<input type="checkbox"/> Once a year	<input type="checkbox"/> Twice a month	<input type="checkbox"/> 5 times a week
<input type="checkbox"/> 6 times a year	<input type="checkbox"/> Once a week	<input type="checkbox"/> Every day

Other illegal drugs (Check only one)

<input type="checkbox"/> Did not use	<input type="checkbox"/> Once a month	<input type="checkbox"/> 3 times a week
<input type="checkbox"/> Once a year	<input type="checkbox"/> Twice a month	<input type="checkbox"/> 5 times a week
<input type="checkbox"/> 6 times a year	<input type="checkbox"/> Once a week	<input type="checkbox"/> Every day

FOR THE FOLLOWING QUESTIONS, ONE DRINK IS DEFINED AS:12 ounce beer **OR** 1 ounce of 100 proof distilled spirits/liquor **OR** 4-5 ounce glass of wine**2. The last time you consumed alcohol, how many alcoholic drinks did you have?**

State your best estimate: _____ drinks

3. How many days did you consume alcohol during the last two weeks?

State your best estimate: _____ days

4. If you plan to drink alcohol during your first year at UGA, how often do you plan to drink (Check only one)?

<input type="checkbox"/> I do not plan to drink	<input type="checkbox"/> Once a month	<input type="checkbox"/> 3 times a week
<input type="checkbox"/> Once a year	<input type="checkbox"/> Twice a month	<input type="checkbox"/> 5 times a week
<input type="checkbox"/> 6 times a year	<input type="checkbox"/> Once a week	<input type="checkbox"/> Every day

5. If you plan to drink alcohol during your first year at UGA, what would be the average number of drinks you would consume each occasion you drink (fill in only one)?

I do not plan to drink
 _____ (Number of drinks)

6. What are your parents' expectations of you as far as alcohol use during your first year at UGA (Check only one)?

- My parents expect me not to drink
 It is okay for me to drink once during the year
 It is okay for me to drink 6 times during the year
 It is okay for me to drink once a month
 It is okay for me to drink twice a month
 It is okay for me to drink once a week
 It is okay for me to drink 3 times a week
 It is okay for me to drink 5 times a week
 It is okay for me to drink every day

7. What are your parents' expectations of you as far as the MAXIMUM number of alcoholic drinks you consume on any one occasion during your first year at UGA?

- Drinks (enter the maximum number of drinks)
 My parents expect me not to drink

8. Have your parents discussed their expectation of you in regards to your alcohol and other drug use at UGA?

- Yes
 No
 Do not know

9. At what age did you first consume alcohol?

(years old)

10. Are you planning to join a fraternity/sorority at UGA (Check only one)?

- Yes
 No
 Do not know

11. Your Sex (Check only one)

- Male
 Female

12. Your ethnic origin (Check only one)

- | | |
|---|---|
| <input type="checkbox"/> American Indian/Alaskan Native | <input type="checkbox"/> White (non-Hispanic) |
| <input type="checkbox"/> Hispanic/Latino/a | <input type="checkbox"/> Multiracial |
| <input type="checkbox"/> Asian/Pacific Islander | <input type="checkbox"/> Biracial |
| <input type="checkbox"/> Black (non-Hispanic) | <input type="checkbox"/> Other |

13. To match your survey with later surveys, please provide the following information:

Day of the month your student was born (1-31):

Five digits of your student's home zip code (e.g. 40733):

First letter of your student's middle name* (e.g. A, B, C, etc.):

*Use the first letter of your first middle name if you have more than one middle name. Leave blank if you not have a middle name.

APPENDIX G

FIRST-YEAR STUDENT QUESTIONNAIRE: FALL 2006

First Year Student Web-Based Questionnaire: Fall 2006

Greetings!

In an effort to keep abreast of trends in the use of alcohol and other recreational drugs, colleges and universities periodically distribute surveys concerning students' alcohol and other drug consumption. This survey extends these efforts to first year students. This survey is a useful tool for learning about campus and nationwide trends and ultimately helpful to undergraduates.

This is the survey that is being distributed during the fall semester and is part of a research project entitled "First Year Student Alcohol and Drug Use" conducted by Mr. Michael D. Shutt a doctoral candidate in the Department of Counseling and Human Development at the University of Georgia. His advisor for this project is Dr. Diane Cooper from the Department of Counseling and Human Development, University of Georgia, 706-542-1812. This research may be published in the future using the aggregated data from the surveys.

The survey should take approximately 5 minutes to complete. It should be noted that the questionnaire deals with the use of illegal drugs and/or underage drinking. **This survey is completely anonymous. You can choose not to participate and can stop taking part at any time without giving any reason, and without penalty. You can skip any question that you do not wish to answer.**

There are no foreseeable or known risks for your participation in this research. There is a slight risk of emotional distress or discomfort for you if you become concerned about your own use of alcohol, tobacco or other drugs, or you become concerned about another person's use. To help alleviate these risks, alcohol, tobacco and other drug education and intervention resources will be made available to you.

Please note that Internet communications are insecure and there is a limit to the confidentiality that can be guaranteed due to the technology itself. However, once we receive the completed surveys, we will store them in a locked cabinet in the researcher's office in 124 Memorial Hall and will destroy them and any names and contact information that we have by January 1, 2007. If you are not comfortable with the level of confidentiality provided by the Internet, please feel free to print out a copy of the survey, fill it out by hand, and mail it to me at the address given below, with no return address on the envelope. If you choose to mail the survey, please do not write your name or other identifiers on it.

You must be at least 18 years old to complete this survey.

All individuals that complete this survey and the follow-up survey in the fall will be eligible to win a \$100 or \$50 gift certificate from the University Bookstore.

Any questions or comments may be addressed to Michael Shutt, 706-542-4120.

Thank you for your help,
Michael D. Shutt
Doctoral Candidate
Department of Counseling and Human Development
706-542-4160

Additional questions or problems regarding your rights as a research participant should be addressed to the IRB chairperson in the Human Subjects Office at the University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411. Telephone: (706) 542-3199; E-Mail Address: IRB@uga.edu.

FOR THE FOLLOWING QUESTIONS, ONE DRINK IS DEFINED AS:
12 ounce beer **OR** 1 ounce of 100 proof distilled spirits/liquor **OR** 4-5 ounce glass of wine

1. How many DAYS did you consume alcohol in the last two weeks?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

2. The last time you consumed alcohol, how many drinks did you have?

Number of Drinks (e.g. 0, 1, 2, etc.) _____

3. How many DAYS did you use marijuana in the last two weeks?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

4. How many DAYS did you use tobacco in the last two weeks?

- 0
- 1
- 2

- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

5. How many DAYS did you use other illegal drugs in the last two weeks?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

6. What are your parents' expectations of you as far as alcohol use during your first year at UGA?

- My parents expect me not to drink
- It is okay for me to drink once during the year
- It is okay for me to drink 6 times during the year
- It is okay for me to drink once a month
- It is okay for me to drink twice a month
- It is okay for me to drink once a week
- It is okay for me to drink 3 times a week
- It is okay for me to drink 5 times a week
- It is okay for me to drink every day

7. What are your parents' expectations of you as far as the MAXIMUM number of alcoholic drinks you consume on any one occasion during your first year at UGA?
Maximum number of drinks (e.g. 0, 1, 2, etc.)

8. Did your parents discuss their expectations of you in regards to your alcohol and other drug use at UGA before moving to campus?
- Yes
 - No
 - Do not know
9. Did you participate in the recruitment process for Greek organizations?
- Yes
 - No
10. As of today, which best describes your interaction with the required online alcohol education course, MyStudentBody.com?
- I have not started the program
 - I have started the program but have not completed it
 - I have completed the program
11. Your sex?
- Male
 - Female
12. Your ethnic origin?
- American Indian/Alaskan Native
 - Hispanic/Latino/a
 - Asian/Pacific Islander
 - Balck (non-Hispanic)
 - White (non-Hispanic)
 - Multiracial
 - Biracial
 - Other

To compare your survey with your with previous surveys, please provide the following information:

13. Day of the month you were born?
- 01
 - 02
 - 03
 - 04
 - 05
 - 06
 - 07
 - 08
 - 09
 - 10
 - 11
 - 12

- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 26
- 27
- 28
- 29
- 30
- 31

14. What are the five digits of your home (not campus) zip code (e.g. 47044)?

15. What is the first letter of your middle name* (e.g. A, B, C)?

*Use the first letter of your first middle name if you have more than one middle name.

- I do not have a middle name
- A
- B
- C
- D
- E
- F
- G
- H
- I
- J
- K
- L
- M
- N
- O
- P
- Q
- R
- S

- T
- U
- V
- W
- X
- Y
- Z

Submit

If you would like to be included in the drawing for the \$50 or \$100 gift certificate, please provide your e-mail address.

Submit

FIGURE 1
REGRESSION MODEL

