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Ethnic Differences In Alcohol Use: A Comparison of Black and White College Students in a Small Private University Setting

Kristie S. Gover
University of North Florida

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ETHNIC DIFFERENCES IN ALCOHOL USE: A COMPARISON OF BLACK AND
WHITE COLLEGE STUDENTS IN A SMALL PRIVATE UNIVERSITY SETTING

By

Kristie S. Gover

A dissertation presented to the Department of Leadership, Counseling, and Instructional
Technology in partial fulfillment of the requirements for the degree of

Doctor of Education

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COLLEGE OF EDUCATION

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The dissertation of Kristie Gover is approved:

Signature Deleted

Marcia Lamkin, Ed.D, Chair

Signature Deleted

3/30/2010
Date

Christopher Johnson, Ph.D, Committee Member

Signature Deleted

3/30/10
Date

Sharon Wilburn, Ph.D, Committee Member

Signature Deleted

3/30/10
Date

Jennifer Kane, Ph.D, Committee Member

Accepting for the Department:

Signature Deleted

E. Newton Jackson, Jr., Ph.D, Department Chair

3/30/10
Date

Accepting for the College:

Signature Deleted

Larry G. Daniel, Ph.D., Dean
College of Education & Human Services

7-23-2010

Accepting for the University:

Signature Deleted

Len Roberson, Ph.D.
Dean, The Graduate School

July 28, 2010

7/30/10

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Abstract

An identified gap in the literature associated with college student alcohol use is the exploration of the problem based on ethnicity, specifically possible differences in use between Black and White college students. The purpose of the present study was to examine differences in alcohol use for Black and White college students at a small private university in the southeast United States. The study was conducted using the Core Alcohol and Drug Survey Long Form, which is designed to collect data related to self-reported use of alcohol and perceptions of alcohol use among college students.

A quantitative methodology was employed by using the statistical analyses one-way analysis of variance, difference in proportions, confidence intervals, and multiple regression analysis. The data revealed significant differences by ethnicity exist between Black and White college students when exploring data associated with drinking during the 30 days prior to taking the survey and consuming five or more drinks in a sitting during the two weeks prior to taking the survey. The motivational factors associated with alcohol consumption did not reveal differences based on ethnicity, and the perception of alcohol use at the research site did not differ by ethnicity. The multiple regression analysis revealed that a combination of factors can be used to predict alcohol use, and the strongest predictor identified was the level of leadership in a social fraternity or sorority. The results provided a great deal of insight into the culture of alcohol use at the research site, and the results may assist personnel in the development of a prevention and educational plan to address the problem on campus.

CHAPTER I: INTRODUCTION

Underage drinking is deeply embedded in American culture. It is a serious public health and safety problem that has personal and societal consequences for college students, their families, their communities, and their peers. Underage drinking is often viewed as a rite of passage, and this perception is frequently facilitated by adults. For college students, alcohol use is often viewed as a part of student life by university faculty, administrators, and parents. These perceptions of alcohol use contribute to the misconception that alcohol misuse ceases at the time that students complete their college education. However, unhealthy alcohol patterns develop during college, and unhealthy alcohol use patterns may persist beyond graduation.

According to the U.S. Department of Health and Human Services (2002), the highest prevalence of alcohol dependence is among people ages 18-20. People between the ages of 12 and 20 consume alcohol less frequently, but when they do drink, they drink more heavily than adults. On average, people between the ages of 12 and 20 who drink, consume five drinks per occasion approximately six times per month, and adult drinkers age 26 and older consume on average two to three drinks per occasion approximately nine times per month. Studies consistently indicate that approximately 80% of college students drink alcohol; approximately 40% engage in binge drinking, and approximately 20% engage in frequent episodic heavy consumption. Binge drinking is defined by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) as a pattern of drinking alcohol that raises blood alcohol concentration to 0.08 gram-percent or above.

For the typical male, this pattern corresponds to five or more drinks in a 2-hour period, and four or more drinks for a female. Frequent episodic heavy consumption of alcohol is defined as binge drinking three or more times over the previous two weeks (NIAAA Update on College Drinking, 2007).

The problem of alcohol misuse among college students is documented by its pervasive and serious consequences. According to Hingson, Heeren, Winter, and Wechsler (2005), approximately 1,700 college students between the ages of 18 and 24 die each year from alcohol-related unintentional injuries, including motor vehicle crashes; approximately 600,000 college students are unintentionally injured while under the influence of alcohol; approximately 700,000 students are assaulted by other students who have been drinking; and approximately 100,000 students are victims of alcohol-related sexual assault or date rape.

According to a Harvard University School of Public Health perception survey of 330 college and university administrators referenced in the report, alcohol abuse played a significant role in violent behavior, damage to campus property, attrition, lack of academic success, and physical injury. According to the survey, "secondhand effects" of alcohol abuse affected students who did not drink excessively through interrupted study or sleep, the need to care for an intoxicated friend, arguments, unwanted sexual advances, property damage, personal attacks, and other undesirable behaviors. The survey reflected that 44% of participants binge drank within the two weeks prior to the survey (Task Force on College Drinking, 2002).

High-risk college drinking is an ongoing problem on college campuses that must be addressed from a variety of angles. The Task Force of the National Advisory Council

on Alcohol Abuse and Alcoholism generated a report to give university administrators a foundation of science-based data on which to build their strategies to address the alcohol problems that exist on college campuses (Task Force on College Drinking, 2002). When examining the complex issues associated with college student alcohol use, researchers have suggested addressing the problem from many different angles, including an exploration of race as a factor in a student's choice to drink or misuse alcohol. According to Siebert, Wilke, Delba, Smith, and Howell (2003), it is important to understand the differences in alcohol use based on race and ethnicity in order to allow college administrators effectively to address the issue of high-risk drinking. More research is needed that focuses on the differences between Black and White students' alcohol use, its consequences, and risk-reduction strategies. The purpose of this study was to further examine the differences in alcohol use between Black and White college students in a small southern private university setting.

Background

The transition into college is a critical developmental time for individuals as they shift from late adolescence to early adulthood. College students are faced with the stress of remaining connected with their families and high school peers and simultaneously establishing their independence and college identities (Borsari, Murphy, & Barnett, 2007). College students encounter the stress of self-regulation for behaviors such as alcohol consumption, class attendance, and relationship decisions. As individuals transition from guidance provided by their parental figures to self-regulation, they become more easily influenced by peers who have assumed the roles of best friends or significant others (Wilke, Siebert, Delva, Smith, & Howell, 2005). To gain a better

understanding of alcohol use among the college student population, it is important to understand the factors that influence a student's decision to participate in high-risk drinking behaviors. Research has suggested that the most prevalent influential factors of alcohol use are moderators and social and environmental factors (Borsari et al.).

Moderators of alcohol use precede college attendance and identify those students who are at risk for increasing their alcohol use during their college experience (Borsari et al., 2007). Understanding moderators can help provide researchers with a foundation to frame college alcohol use. Borsari et al. conducted a literature review and extracted six moderators of alcohol use, including race, religiosity, gender, sensation seeking, pre-college alcohol use, and parental influence.

Multiple studies indicate that White students consume alcohol the most frequently, followed by Hispanic students, Asian students, and African-American students (Borsari et al., 2007; Broman, 2005; Marx & Sloan, 2003; Siebert et al., 2003). According to a national study conducted by the Core Institute, of the 40,000 college and university students surveyed, the largest proportions of alcohol abstainers were Asian/Pacific Islander and Black respondents. White college students reported drinking, on average, twice the number of drinks per week as non-whites (Higher Education Center for Alcohol and Other Drug Abuse and Violence Prevention, 2001).

Race is also a common thread in the moderator of religiosity. Brown, Parks, Zimmerman, and Phillips (2001) found that African-American adolescents were more religious than White adolescents. Haber and Jacob (2007) found that African-American teenage girls were less likely to drink compared to their White male and female peers.

Additionally, Borsari et al. (2007) reported that the depth of a person's religious commitment also plays a role in abstinence from alcohol use.

Research has consistently reported that males drink more frequently and are more likely to drink excessively than females (Biscaro, Broer, & Taylor, 2004; Broman, 2005). According to Biscaro et al., male college students consumed more drinks per week and engaged in high-risk drinking more frequently than females. Additionally, White women were 2.3 times more likely to report high-risk drinking than Black women (Wilke et al., 2005). This pattern is true for adolescents as well and may be connected to the finding that sensation-seeking is a predictor for alcohol use (Borsari et al., 2007).

Sensation-seeking is a common trait among adolescents and influences the propensity to engage in high-risk behaviors such as alcohol use. According to a report generated by the U.S. Department of Health and Human Services (2002), one of the most significant differences between adults and adolescents takes place during emotionally charged situations that influence sensation-seeking behaviors. These types of situations may influence adolescents to follow the innate drive to participate in high-risk experiences. The difference in decision making abilities between adolescents and adults was explained in the report by maturational timing across the brain. The area of the brain thought to regulate emotions matures earlier than the area of the brain responsible for self-regulation, judgment, reasoning, and impulse control. This difference in timing can contribute to an adolescent's impulsive decision making and disregard for consequences (U.S. Department of Health and Human Services, 2002).

An adolescent's drinking patterns are an influential factor in future decisions surrounding alcohol. As reported by Borsari et al. (2007), an identified moderator of

alcohol use is a person's pre-college history of use. Their research reported that a large percentage of freshmen come to college with established drinking patterns which are generally maintained or increased during the first year at college. Komro, Maldonado-Molina, Tobler, Bonds, and Muller (2007) found the alcohol patterns of family members impacted the alcohol use of adolescents and consequently influenced the alcohol use of college students. While parental influence may decline as a student enters college, parents continue to play a role in helping their children make informed decisions. Parents should set academic, financial, and behavioral expectations prior to their children's departure for college (National Institute on Alcohol Abuse and Alcoholism, 2007). According to Borsari et al. (2007), parents who talk to their children about alcohol reduce the risk that children will be influenced by peers.

Awareness of moderators that predict a college student's propensity to consume alcohol combined with knowledge of social and environmental influences help educators gain a better understanding of college student alcohol use (Borsari et al., 2007; Jones, Heflinger, & Saunders, 2007). Once again, ethnicity is a common thread in the degree of influential factors associated with alcohol use. According to Humara and Sherman (1999) and Paschall and Flewelling (2002), motivational factors that influence high-risk drinking are different for Black and White college students. Generally, Black students are less likely than White students to be influenced by interpersonal factors such as peer pressure, conflict with others, and pleasant times with others.

One of the strongest predictors of alcohol use for college students is alcohol expectancy (Biscaro et al., 2004; Kuther & Timoshin, 2003). Alcohol expectancy can be defined as the desired effects students anticipate when consuming alcohol. Alcohol is

used to enhance social assertiveness, ease social tension, and give individuals the confidence to say or do things they would not ordinarily say or do (Kuther & Timoshin). Based on research conducted by Humara and Sherman (1999), these expectancies are primarily motivators for White students. The research to describe motivating factors for Black students is somewhat limited; however, Humara and Sherman reported that high-risk Black drinkers were more likely to consume alcohol as a means of coping with negative life circumstances.

Paschall and Flewelling (2002) reported that being outwardly intoxicated is less acceptable in the Black community. Traditionally, Blacks are more heavily influenced by traditional values and religion. White college students, on the other hand, use alcohol to facilitate the alcohol expectancy of engaging in behavior they would not ordinarily do. White students are more easily influenced by their roommates, surrounding community, and social settings (Paschall & Flewelling; Siebert et al., 2003).

Additionally, White students are more heavily influenced by the environment than Black students. Research consistently reflects that the type of institution a student attends does influence high-risk drinking for Whites but does not significantly impact high-risk drinking for Black students (Laird & Shelton, 2006; Rhodes, Singleton, McMillan, & Perrino, 2005). White students enrolled at historically black colleges and universities (HBCUs) drink less than White students at predominately white institutions (PWI). For White students, the environmental and social influences of an HBCU reflect less need to drink in order to “fit in” or connect socially with others (Laird & Shelton; Paschall & Flewelling, 2002; Paschall et al., 2005; Wechsler & Kuo, 2003).

The stressors of the college environment combined with pre-existing factors that influence alcohol use contribute to the coping mechanisms adopted by college students. Many complex factors play a role in a college student's decision making. It is important for educators to understand the motivational reasons behind college student behaviors that potentially have a negative impact on the campus and community. Negative consequences associated with high-risk drinking among college students have a great impact on the university and surrounding community. College student alcohol use is a complex issue that must be addressed from a variety of angles. A report generated by the U.S. Department of Health and Human Services (2002) acknowledged that racial differences in alcohol use needs additional evaluation. Research in the area of racial differences in alcohol use will provide educators with more focused information to drive educational and prevention efforts associated with high-risk drinking.

Statement of Research Questions

The purpose of the present study was to examine the differences in alcohol use between Black and White college students in a small southern private university setting. Research supports the need to gain a better understanding of group differences in alcohol use among college students. This perspective was created in order to develop better prevention and educational efforts to reduce the negative consequences associated with alcohol abuse. The present study sought to address the following research questions:

RQ 1. Are the perceptions of alcohol and the self-reported use of alcohol different for Black and White college students?

RQ 2. Are motivators for alcohol use different for Black and White college students?

RQ 3. Does any combination of factors predict alcohol use?

Conceptual Design

The conceptual design of the present study was based on ecological theory. Ecological theory offers an explanation for human behavior and decision-making and can be applied to a college student's alcohol use (Jones, Heflinger, & Saunders, 2007). According to Bronfenbrenner (1979), the ecological perspective suggests researchers must be attentive to an individual's immediate and external environments while evaluating human behavior. An individual's behavior is a reflection of both influences, which include an individual's culture and subculture. When exploring alcohol use and college students, researchers must account for the ways that the college environment and cultural environment both play a role in decision making (Jones et al.; Wagner, Liles, Broadnax, & Nuriddin-Little, 2006).

The ecological theory can provide a framework for understanding college student drinking norms by accounting for the influences of an individual's culture, personal values, beliefs, internal environment, and external environment. The ecological theory places a great deal of emphasis on the way that the combination of these influences impacts human behavior and decision-making. It is a complex system that can be used to frame the multiple factors that encompass a college environment, which includes the cultural influences an individual brings to college. Ecological theory accounts for alcohol moderators, which are pre-college influences that predict future alcohol use. It recognizes the great importance of an individual's environment, which includes social and environmental factors. Furthermore, ecological theory addresses an individual's culture or subculture, which frames racial differences in alcohol use among college students. The

combination of these influences, as described by the ecological theory, can help researchers understand the complex factors that influence college student alcohol use.

The person's environmental influences, cultural influences, and relationships are intertwined to play a role in decision making. These factors are important to consider in a college student's perception of alcohol use and motivation to consume alcohol.

Ecological theory supports the conceptual design of the present study by demonstrating the need to consider the multiple aspects of the college environment and the way that the various environmental and cultural influences impact decision making and perceptions.

The survey instrument, Core Alcohol and Drug Survey Long Form, was selected to address the research questions and account for environmental and cultural influences.

Methodological Design of the Study

The present study used descriptive and inferential statistics to analyze the data collected. A quantitative research design was followed to determine the association between the dependent and independent variables. This design allowed the researcher to compare mean scores of the groups, and to determine if differences existed between Black and White college students' perceptions of alcohol use and factors that influenced personal use.

The survey data were analyzed using the statistical tests analysis of variance (ANOVA) and multiple regression analysis. ANOVA allowed testing for differences within a dependent variable between the independent variable, Black and White college students (Creswell, 2005). The focus on Black and White college students was based on the direction of previous research which indicated the need for additional information regarding the differences in alcohol consumption between the two groups (Broman, 2005;

Higher Education Center for Alcohol and Other Drug Abuse and Violence Prevention, 2001; Siebert et al., 2003). Multiple regression analysis allowed the examination of ways that more than one variable or some combination of variables predicted alcohol use (Salkind, 2004).

Setting

The participants were selected from a small private liberal arts university in the southeastern United States. According to the office of institutional research at the research site, the selected university had a 1:1 male to female student ratio. The total undergraduate university population at the time of the study was .07% Native American/Alaskan; 20.5% Black, Non-Hispanic; 2.8% Asian/Pacific Islander; 5.9% Hispanic; 55.8% White, Non-Hispanic; 2.5% Non-Resident Alien; and 11.7% unknown (Table 1).

Table 1

Ethnicity of Sample

Total Undergraduate Ethnicity	Year of Enrollment		
	2006	2007	2008
Native American/Alaskan	0.6%	0.6%	0.7%
Black, Non-Hispanic	19.2%	20.6%	20.5%
Asian/Pacific Islander	2.1%	2.4%	2.8%
Hispanic	5.0%	5.5%	5.9%
White, Non-Hispanic	59.1%	54.9%	55.8%
Non-Resident Alien	2.6%	2.1%	2.5%
Unknown	11.4%	13.9%	11.7%

The university's alcohol policy allowed students of legal drinking age to consume alcohol in their residence hall rooms; however, students who were not of legal drinking age were not permitted to consume alcohol or be in the presence of alcohol. The university's sanctioning policy was a combined approach that reflected a punitive fine, educational component, and potentially parental notification or a form of disciplinary probation. The alcohol and drug sanctions were outlined in the Code of Student Conduct and demonstrated the increasing severity of sanctioning based on a minimum sanction standard (see Table 2). Table 2

Minimum Sanctions for Alcohol Policy Violations at the Research Site

Violation	1st Offense	2 nd Offense	3 rd Offense
Under 21, in possession of alcohol and/or in the presence of alcohol	\$50 fine Reprimand	\$100 fine Parental notification Alcohol education program	\$250 fine Parental notification Disciplinary probation
21 and older, improper possession/open container	\$50 fine Reprimand	\$100 fine Alcohol education program	\$250 fine Parental notification Disciplinary probation
Host of an unauthorized gathering where alcohol is present	\$100 fine	\$250 fine Disciplinary probation	Suspension from residence
Possession of kegs and/or other common container and/or paraphernalia	\$100 fine Disciplinary probation	\$250 fine Suspension from residence	Suspension from University

The alcohol education program used by the institution was an online program designed to help students learn about the consequences of alcohol use, personal alcohol use, and risk reduction methods. Additionally, students were referred to the Student Counseling Center for follow-up and assessment.

Significance of Study

Control of high-risk alcohol use by college students has been recognized as timely and important by The U.S. Department of Health and Human Services (2002). The range and magnitude of consequences associated with high-risk drinking is significant. The most commonly reported negative consequences of alcohol use are high-risk behaviors, academic problems, violence, and behaving in a manner that was later regretted (Duncan, Boisjoly, Kremer, Levy, & Eccles, 2005; Kaly, Heesacker, & Frost, 2002; White, Labouvie, & Papadaratsakis, 2005). However, consequences of high-risk drinking can be as severe as injury or death (National Institute on Alcohol Abuse and Alcoholism, 2005).

Due to the severity and broad impact of high-risk drinking among college students, the government took a stance on college drinking with the Drug-Free Schools and Communities Act Amendments of 1989 by connecting federal funding to alcohol policy development and enforcement. The Drug-Free Schools and Communities Act (DFSCA) and Drug-Free Schools and Campuses Regulations require that any institution of higher education that receives any form of federal funding must certify that it has a program to prevent the unlawful possession, use, or distribution of illicit drugs and alcohol by students and employees. Additionally, the Higher Education Act of 1998 gave universities who receive federal funding authority to notify parents for any drug or

alcohol violation (Drug-Free Schools and Communities Act Amendments of 1989 Report from the Committee of Congress).

The present study examined the important issue of alcohol use from a unique perspective by focusing on ethnic differences. Ethnic differences among college students most drastically exist between Black and White students, and gaining a better understanding of ethnicity as a factor in alcohol use can help educators adopt a more focused approach at addressing this complex issue. The present study contributed to existing research by providing data regarding ethnic differences in relation to perceptions of alcohol use, actual alcohol use, motivators for alcohol use, consequences of alcohol use, and the combination of factors that contribute to alcohol use. The data may be helpful in determining how prevention and educational efforts should be tailored to meet the specific needs of White and Black students.

Alcohol education and prevention research is important to the field of higher education because it is an issue that impacts all college campuses and all students to varying degrees. High-risk drinking impacts individuals, and the secondhand impact of alcohol use impacts students who choose not to drink. Behavior associated with high-risk drinking impacts the campus community and surrounding environment through primary and secondary influences. It is a vast and complex problem affecting many, including those who choose to be responsible or abstain from alcohol use. Approaching the issue of alcohol use from the unique perspective of ethnic differences provides educators with an additional frame with which to address the problem.

Operational Definitions

The following terms are defined for use in this study.

Binge drinking is a pattern of drinking alcohol that raises the blood alcohol concentration to 0.08 gram-percent or above (National Institute on Alcohol Abuse and Alcoholism Update on College Drinking, 2007).

Binge drinking for males is defined as five or more drinks in a 2-hour period (National Institute on Alcohol Abuse and Alcoholism Update on College Drinking, 2007).

Binge drinking for females is defined as four or more drinks in a 2-hour period (National Institute on Alcohol Abuse and Alcoholism Update on College Drinking, 2007).

Black is used to describe the ethnicity African American or Black (non-Hispanic). The decision to use the terminology *Black* was determined based on the use of terminology in the selected survey instrument.

Classification is defined by participant reported classification as a freshmen, sophomore, junior, senior, graduate, professional, not seeking a degree, or other (see Appendix A).

Current residence is defined as students who live on campus or off campus (see Appendix A).

Employment is defined as participant reported employment status ranging from employed full-time, employed part-time, or not employed (see Appendix A).

Ethnicity is defined as the racial group with which the participant most closely identifies including American Indian/Alaskan Native, Hispanic, Asian/Pacific Islander, White (non-Hispanic), Black (non-Hispanic), or other (see Appendix A).

Extracurricular involvement is defined by participant reported participation in one of the following activities during the year prior to survey completion: intercollegiate athletics,

intramural or club sports, social fraternities or sororities, religious or interfaith groups, international and language groups, minority and ethnic organizations, political and social action groups, musical and other performing arts groups, student newspaper, radio, TV, and magazine. (see Appendix A).

Family history of alcohol use is defined as participant reported alcohol or other drug problems by family members (see Appendix A).

Frequent episodic heavy drinking is defined as binge drinking three or more times over the previous two weeks (National Institute on Alcohol Abuse and Alcoholism Update on College Drinking, 2007).

Grade Point Average is defined as participant reported grade point average based on the following range: A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F (see Appendix A).

Heavy drinkers are defined as people who binge drink at least once per week (Presley & Pimentel, 2006).

Heavy and frequent drinkers are defined as people who binge drink at least three times per week (Presley & Pimentel, 2006).

Living arrangement is defined as one of the following housing options: house/apartment, residence hall, approved housing, fraternity/sorority, other: with roommate(s), alone, with parents, with spouse, with children, other (Core Alcohol and Drug Survey Long Form, 2008).

Polysubstance Use is defined as the co-administration of substances to enhance the desired effects or diminish certain undesirable effects of the drugs (Barrett, Darredeau, & Pihl, 2006).

White is used to describe the ethnicity Caucasian or White (non-Hispanic). The decision to use the terminology White was determined based on the use of terminology in the selected survey instrument.

Organization of the Study

The report of this study was organized into five chapters. Chapter I introduced the study by describing the nature and severity of the problem, providing a summary of the related literature, stating the research questions, describing the conceptual design, summarizing the methodology, and demonstrating the significance of the study. Chapter II provides a review of related literature. The literature review begins with an overview of high-risk drinking and describes racial differences in alcohol use among college students. The conceptual framework for the study was presented, and moderators of alcohol use are described. The literature review also examined empirical studies that explored the social and environmental influences of alcohol use. The review of the literature concludes by illustrating the consequences of alcohol misuse and possible prevention strategies for addressing the issue. Chapter III describes the methodology used to conduct this study and includes the conceptual design and methodological steps used. Chapter IV provides a report of the data findings regarding ethnic differences in alcohol use, and Chapter V provides a discussion of the findings including an analysis of the implications for educational leaders of higher education institutions.

CHAPTER II: LITERATURE REVIEW

Alcohol consumption on college campuses poses one of the most hazardous health and safety risks to individuals and the community. Drinking on college campuses is a widespread problem that fosters serious consequences (National Survey on Drug Use and Health, 2006; Task Force on College Drinking, 2002). Alcohol use among college students is viewed by many students as a part of the college experience. Traditions reinforce students' expectations that drinking is essential to social success in the college environment, and those beliefs play a powerful role in the perception of alcohol use among college students (Task Force on College Drinking, 2002). The nature of the problem is reflected in college students' expected beneficial outcomes associated with alcohol, the desire to include themselves in the norms of college culture, and their attempts to cope with the pressures that accompany college life.

High-risk college drinking was described as a timely and important problem by the Task Force on College Drinking (2002). The National Survey on Drug Use and Health (NSDUH) Report indicated that 57.8% of full-time college students aged 18 to 20 had used alcohol during the month prior to the survey and 40.1% engaged in high-risk alcohol use, defined as five or more drinks in a 2-hour period for men and four or more drinks in a 2-hour period for women (Task Force on College Drinking, 2007). The U.S. Department of Health and Human Services (2002) reported that college students between the ages of 18 and 24 years represent 1,400 alcohol-related deaths and 70,000 victims of sexual assault or date rape annually.

In addition, 150,000 develop alcohol-related health problems annually, and 2.1 million drive under the influence of alcohol annually. Although these statistics are alarming, it is noteworthy that all groups do not use alcohol to the same extent. According to research, it is common knowledge that Black students do not use alcohol to the same extent as White college students (Broman, 2005; Siebert et al., 2003; Wagner et al., 2006). Williams et al. (2007) reported that White youths used alcohol at two times the rate of Black youths, and this trend is reflected in college alcohol use as well. Research suggested that motivators to drink are different for Black and White college students (Dunigan, 2004; Humara & Sherman, 1999; Paschall & Flewelling, 2002). Based on moderating factors, Black students are more guided by traditional values and religious practices, which are connected to lower rates of high-risk drinking (Laird & Shelton, 2006). Additionally, researchers reported that the demographics of a campus influence the propensity of students to engage in high-risk drinking (Dunigan, 2004; Wechsler & Kuo, 2003).

Siebert et al. (2003) conducted a study that revealed startling differences in alcohol consumption between Black and White college students. In a survey of 1110 participants, Siebert et al. reported that 27% of Black students were abstainers from alcohol compared to 9% of Whites. Additionally, Siebert et al. found that 20% of Whites who were not abstainers reported having a drink within the past 30 days compared to 10% of the Black non-abstainers. White students also reported experiencing consequences such as doing something they later regretted, forgetting where they were or what they did, physically injuring themselves, and having unprotected sex more frequently than Black students.

The deeply rooted culture and severity of alcohol misuse among college students is a complex issue that warrants further examination. Many possibilities exist for researchers to contribute to the body of literature that seeks to provide an understanding of college alcohol use. Researchers can narrow the focus of alcohol research and address a gap in research by focusing on group differences in alcohol use, the relational differences to alcohol determined by moderators, social and environmental factors, consequences, and preventive efforts associated with college student alcohol use.

Conceptual Framework

Exploring a college student's decision-making and behavior is complex. College students live in a unique environment that encompasses unusual stressors when values and decision making collide. It is common for college students to experience stress related to academics, employment, social networking, living arrangements, and cultural differences. These stressors play a role in their everyday decision-making and behavior (Broman, 2005; Dusselier, Dunn, Wang, Shelley, & Whalen, 2005). Ecological theory offers an explanation for human behavior and decision-making and can be applied to a college student's alcohol use. According to Bronfenbrenner (1979), the ecological perspective suggests that researchers must be attentive to an individual's immediate and external environments when evaluating human behavior. An individual's behavior is a reflection of both influences, which include an individual's culture and subculture. When exploring alcohol use and college students, researchers must account for the roles that the college environment and the student's cultural environment both play in decision making (Jones et al., 2007; Wagner et al., 2006). Ecological theory is used to frame alcohol use on college campuses by focusing on the environmental management component of

institutions. According to DeJong and Langford (2002), the environmental management components that serve as the foundation for ecological framework include intrapersonal factors, interpersonal processes, institutional factors, community factors, and public policy. In addition to the environmental factors that are imbedded in ecological framework, ecological theory also accounts for the influences of one's culture. "Ecological theory posits that an individual's personal values, beliefs, and behaviors reflect the over-arching contextual influences of the cultural group with which an individual identifies" (Wagner et al., p. 230).

According to Bronfenbrenner (1979), the ecological perspective relates to the conception of the developing person, of the environment, and of the evolving interaction between the two. The ecological environment is a conceived set of nested structures. The first structure is the developing person. Development can occur in an academic setting, home, or living environment, such as a college campus. The second level of development involves the developing relationship between the person and the setting. In the collegiate environment, the developing relationship between the person and the setting involves many factors and influences. Ecological theory illustrates how college student drinking is affected by multiple levels of influences including individual, group, institutional, community, and public policy (DeJong & Langford, 2002). The third level of the ecological environment suggests that a person's development is affected by events occurring in settings in which the person is not present. College students are faced with the challenge of managing multiple influences and making difficult decisions throughout the transition from adolescence to early adulthood. Many of these influences are grounded in the student's culture and parental influence. The setting in which the student

is not present may include a parent's workplace or sibling's environment. Intertwined in the three levels of structures is an individual's culture or subculture. One of the primary influences on behavior and development is the environment as it is perceived rather than as it may exist in "objective" reality. The perceived environment is a widely discussed topic in the field of college alcohol use and social norms, which reinforces ecological theory as a framework for studying alcohol use among college students.

Wagner et al. (2006) and Jones et al. (2007) used the ecological theory to provide a framework for their research in alcohol use among college students and adolescents. Wagner et al. used the theory to explain the factors that motivate college students to drink and emphasized the differences between racial groups and the extent of alcohol use. These researchers considered the influence of environmental factors, race, and psychological variables on the motivation for college students to consume alcohol. Jones et al. used the ecological theory to frame alcohol use among adolescents and the use of substance abuse services. They examined features of individuals, the community, and culture. The ecological framework allowed Wagner et al. and Jones et al. to frame the findings within a context that accounts for the variables that influence alcohol consumption.

In addition to providing a framework for influences that impact decision making, ecological theory has been used to address high-risk drinking prevention and reduction efforts. The environmental strategies that seek to address high-risk drinking are grounded in the ecological framework, which recognizes that the decision to engage in high-risk drinking is influenced at multiple levels by intrapersonal or individual factors, interpersonal or group processes, institutional factors, community factors, and public

policy (DeJong & Langford, 2002). Intervention at the individual level promotes education, awareness, and efforts to influence decision making that will lead individuals to avoid high-risk drinking and encourage them to intervene when friends engage in high-risk drinking. The intervention strategy for interpersonal or group processes involves identifying at risk groups and focusing on how to positively impact decision making. Efforts have been made to create substance-free living environments, alcohol-free recreational activities, social norming campaigns, and peer-to-peer educational groups (DeJong & Langford; Toomey, Lenk, & Wagenaar, 2007). According to DeJong and Langford, institutional factors have also been identified as influential in decision making. Suggested prevention efforts include limiting alcohol availability on campus and creating campus alcohol policies that deter students from engaging in high-risk drinking. Community intervention strategies include restricted marketing, restricted hours and days of alcohol sales, increased price of alcohol, and restricted alcohol price promotions at surroundings bars and restaurants. Public policy efforts to reduce high-risk drinking include college administrators working for laws that support increased penalties for illegal service to minors, supporting harsher penalties for driving under the influence, and encouraging states to create tamper-proof licenses for drivers under age 21 (DeJong & Langford; Toomey et al.).

The ecological theory can provide a framework for understanding college student drinking norms by accounting for the influences of an individual's culture, personal values, beliefs, internal environment, and external environment. Ecological theory places a great deal of emphasis on the way that the combination of these influences impacts human behavior and decision-making. It is a complex system that can be used to frame

the multiple factors that encompass a college environment, which includes the cultural influences an individual brings to college. Ecological theory accounts for alcohol moderators, which are pre-college influences that predict future alcohol use. It recognizes the great importance of an individual's environment, which includes social and environmental factors. Ecological theory also addresses an individual's culture or subculture, which frames racial differences in alcohol use among college students. The combination of these influences, as described by the ecological theory, can help researchers understand the complex factors that influence college student alcohol use.

Moderators of Alcohol Use

To gain a better understanding of alcohol use in the college student population, it is important to understand the moderators of alcohol use. Moderators of alcohol use precede college attendance and may identify those students who are at risk for increasing their alcohol use during their college experience. Borsari et al. (2007) conducted a literature review and extracted six moderators of alcohol use including, race, religiosity, gender, sensation seeking, pre-college alcohol use, and parental influence. Knowledge of moderators gives parents and university personnel an understanding of the way a student's history plays a role in future use and equips them with additional tools to select appropriate alcohol abuse prevention programs.

Multiple studies indicate that White students consume alcohol the most frequently, followed by Hispanic, Asian, and African-American students (Borsari et al., 2007; Broman, 2005; Marx & Sloan, 2003; Siebert et al., 2003). Paschall and Flewelling (2002) collected interview data from 12,993 young adults who participated in the National Longitudinal Study of Adolescent Health. The data were analyzed to determine

if 4- or 2- year college attendance was associated with heavy alcohol use for various racial groups. Paschall and Flewelling found that African-Americans are less likely to engage in heavy drinking if they attend college, whereas Whites who attend college are more likely than their non-student peers to engage in heavy drinking. The researchers suggested that it is more culturally acceptable in general for Whites to drink than for African-Americans, which supports race as a moderator of alcohol use among college students.

Race is also a common thread in the moderator of religiosity. Brown et al. (2001) found that African-American adolescents were more religious than White adolescents. Haber and Jacob (2007) found that African-American teenage girls were less likely to drink compared to their White male and female peers. According to Haber and Jacob, Black churches have historical roots in both the black emancipation movement and the U.S. temperance movement, both viewing alcoholism as enslavement. Religious differentiation and social differentiation remain closely interwoven in this community, and black psychologists report that religion is an integral part of the black identity. (p. 920)

Additionally, Borsari et al. (2007) reported that the depth of a person's religious commitment also plays a role in abstinence from alcohol use.

Research consistently reports that males drink more frequently and are more likely to drink excessively than females (Biscaro et al., 2004; Broman, 2005). According to Biscaro et al., male college students consumed more drinks per week and engaged in high-risk drinking more frequently than females. Additionally, a secondary analysis of data collected from a probability sample of 1,422 students through a mail survey revealed

that White women were 2.3 times more likely to report high-risk drinking than Black women (Wilke et al., 2005). This pattern is true for adolescents as well and may be connected to the finding that sensation-seeking is a predictor for alcohol use (Borsari et al., 2007). According to Borsari, “sensation seeking is a personality trait associated with strong preference for physiological arousal and novel experiences, including a willingness to take social, physical, and financial risks for arousal” (p. 2065).

Borsari et al. (2007) reported that a large percentage of freshmen come to college with established drinking patterns which are generally maintained or increased during the first year at school. Komro et al. (2007) found that the alcohol patterns of family members impact the alcohol use of adolescents. For example, in a study they conducted, parents who reportedly allowed their sixth-grader to drink at home increased the likelihood that their sixth-grader would engage in high-risk drinking. Likewise, a predictor for high-risk drinking in an adolescent was a parent who reportedly asked the child to bring the parent an alcoholic beverage. Komro et al. reported that parents have a great deal of influence over the drinking patterns of their children, whether it is by directly providing alcohol or by it being accessible in the home. Harford et al. (2003) explained,

Although drinking typically is not a behavior learned in college but often represents a continued pattern of behavior established earlier, for many students the transition to the college campus increases exposure to normative contexts associated with heavier use of alcohol. (p. 705)

Although parental involvement is typically viewed as less influential once a student enters college, parents continue to influence a student’s relationship with alcohol

(Borsari et al., 2007). According to the Task Force on College Drinking (2002), parental influence begins with helping high school students select a college or university. Parents are encouraged to inquire about campus alcohol policies, alcohol-free living environments, alcohol education programs, parental notification policies, and the social climate. Parents are encouraged to stay involved. According to Borsari et al., students who talk with their parents about alcohol use are less likely to be influenced by their peers. The Task Force on College Drinking suggested that parents should make frequent contact during that crucial first six weeks of college when students are most likely to start drinking. Borsari et al. and the Task Force on College Drinking suggested that parents inquire about roommate relationships and the roommate's drinking patterns. Finally, parents who are college graduates should be cautious not to assume that their student's alcohol behavior is part of the college experience (Borsari et al.)

Social and Environmental Influences of Alcohol Use

The transition into college is a critical developmental time for individuals as they shift from late adolescence to early adulthood. College students are faced with the stress of remaining connected with their families and high school peers and establishing their independence and college identities (Borsari et al., 2007). College students encounter the stress of self-regulation for behaviors such as alcohol consumption, class attendance, and relationship decisions. As individuals transition from guidance provided by their parental figures to self-regulation, they become more easily influenced by peers who have assumed the roles of best friends or significant others (Wilke et al., 2005). Research suggested that social and environmental influences in the college environment play a

significant role in an individual's decision making (Jones et al., 2007). However, the influences varied based on a student's race and group affiliation.

According to Humara and Sherman (1999) and Paschall and Flewelling (2002), motivational factors that influence high-risk drinking are different for Black and White college students. Humara and Sherman described intrapersonal factors as unpleasant emotions, physical discomfort, pleasant emotions, testing personal control, and urges or temptations to drink. Interpersonal factors were described as conflict with others, social pressure to drink, and pleasant times with others (Humara & Sherman). Humara and Sherman conducted a study that examined gender, race, and high-risk drinking status differences between White and Black college students. The study revealed that high-risk White drinkers scored higher on the interpersonal factors, and high-risk Black drinkers scored higher on the intrapersonal factors. Their study was supported by findings that suggested Blacks were more likely than Whites to engage in high-risk drinking as a means of coping with negative life circumstances such as economic and emotional distress (Paschall et al., 2005).

One of the strongest predictors of alcohol use in college students is alcohol expectancy (Biscaro et al., 2004; Kuther & Timoshin, 2003). Alcohol expectancy can be defined as the desired effects students anticipate when consuming alcohol. College students expect both positive and negative effects from drinking (O'Hare, 2001). Students commonly believe alcohol will enhance social assertiveness, ease social tension, and give individuals the confidence to say or do things they would not ordinarily do. These expectancies are primarily motivators for White students. Likewise, the use of alcohol as a coping mechanism for depression and tension reduction is more typical of

high-risk Black drinkers (Humara & Sherman, 1999). The rigor of a college curriculum, elevated expectations, and homesickness can all produce emotional distress from which students attempt to seek reprieve through alcohol use (Biscaro et al.; O'Hare; Kuther & Timoshin).

Additionally, the social influences that play a role in a student's decision to consume alcohol are supported by Humara and Sherman's (1999) research that suggested White students are more likely to drink to fulfill interpersonal needs. Increasingly, drinking games serve as the tool to foster the social success associated with alcohol consumption. Participation in drinking games helps to break the ice and gives students something about which to talk. According to Borsari (2004), college students reported four reasons to play drinking games: intoxicate self, intoxicate others, meet new people, and compete. The drinking game culture supports the notion that drinking is essential to social success in college.

Drinking in order to "fit in" with the crowd is a commonly reported reason for college student alcohol consumption (Kuther & Timoshin, 2003; Reifman, Watson, & McCourt, 2006). The perception of drinking being associated with popularity is not unfounded: having high levels of peer acceptance during the first year at school has been linked to heavy drinking. Reifman et al. used a three-wave panel design that included 119 complete cases to research social influence and heavy drinking. Friends of participants reported that those who have more friends that they would classify as "drinking buddies" were also more likely to drink. A study conducted by Spratt and Turrentine (2001) revealed a surprising risk factor associated with alcohol abuse. Much like those who have been identified with the social inclination to drink in order to be part of the mainstream

culture, student leaders also fit the profile of an extroverted, high-energy, social student who is at risk for alcohol abuse. Spratt and Turrentine conducted a study with existing Core Alcohol and Drug Survey data with a total sample of 1,992 responses. The researchers explored the alcohol use of student leaders in organizations considered low alcohol use groups including minority and religious organizations. The researchers found that students with dual leadership roles were more likely to drink significantly more drinks per week on average than students with one or zero leadership positions. Additionally, Black (non-Hispanic) students in dual leadership roles were more likely than White (non-Hispanic) students in dual leadership roles to drink above the national average. When compared with students in leadership roles associated with high alcohol use groups such as Greek organizations or athletic teams, the students with dual leadership roles in low alcohol use groups drank at higher rates. This information is contrary to intuition because it is logical to think that low alcohol use groups would select leaders who embody their values, beliefs, and behaviors. Spratt and Turrentine concluded that these leaders were likely attracted to the leadership role itself rather than the role of representing the particular organization whose cultural and moral values were likely not in alignment with the behavior of the leader.

Peer influence is a strong predictor in a college student alcohol use, which is reflected in research that has revealed elevated levels of high-risk drinking among members of Greek letter organizations and members of athletic teams (Barry, 2007; Dams-O'Connor, Martin, & Martens, 2007). The literature is limited for racial differences and peer influence; however, based on research reported by Paschall and Flewelling (2002), being outwardly intoxicated is less acceptable in the Black

community. Researchers have also found that exposure to the college environment is more likely to decrease high-risk drinking among Blacks but increase the likelihood of high-risk drinking for White (Paschall & Flewelling, 2002; Paschall et al., 2005).

Additionally, Whites were more likely to drink for social or celebratory reasons, and Blacks are more likely to drink for intrapersonal reasons (Paschall et al.; Siebert et al., 2003). Based on ecological theory, these findings support the influence of environment and culture.

In addition to post secondary education in general, the type of institution has also been found to play a role in drinking patterns. While the type of institution does not significantly impact the tendency to engage in high-risk drinking for Black students, institution type does influence high-risk drinking for Whites (Laird & Shelton, 2006; Rhodes et al., 2005). Whites enrolled at historically black colleges and universities (HBCUs) drink less than White at non-HBCUs. The factors that reportedly contributed to lower rates of consumption for Black students included less disposable income for alcohol, fewer opportunities to party, less tolerance of substance abuse by the administration, a greater emphasis on religion, a greater sense of purpose, and more pressure to succeed. For White students, the environmental and social influences of an HBCU reflected less need to drink in order to “fit in” or connect socially with others (Laird & Shelton; Paschall & Flewelling, 2002; Paschall et al., 2005; Wechsler & Kuo, 2003).

A study conducted at a small private university in California sought to explore differences in binge drinking among first-year students. According to Ichiyama and Kruse (1998), younger students with high family incomes at private universities are more

likely to binge drink than their peers at different types of institutions. Using the Core Alcohol and Drug Survey, Ichiyama and Kruse analyzed data collected from 334 students regarding self-reported alcohol consumption and associated consequences. The data indicated that alcohol-related problems were positively related to binge drinking frequency. Binge drinkers indicated that they were motivated to drink to gain acceptance from their peers, and frequent binge drinkers were motivated to drink to cope with stress and unpleasant emotions.

According to Weitzman, Nelson, and Wechsler (2003), college students are influenced by environments that provide easy access to inexpensive alcohol. Marketing ploys such as discount pricing, nearby bars and clubs, and high densities of alcohol outlets in areas surrounding colleges contribute to higher levels of alcohol consumption. However, students who chose to live in substance-free residence halls and had exposure to community norms that support civic engagement were less likely to engage in high-risk drinking (Weitzman et al.). Additionally, the exposure to contexts associated with heavier alcohol use has been shown to influence high-risk drinking (Harford et al., 2003; Weitzman et al.). Research that differentiates cost as a motivator according to race is limited.

Students also tend to overestimate both descriptive and injunctive norms; that is, students often believe that peers drink more than they do and that peers are more approving of alcohol use than they actually are (LaBrie et al., 2007). As a result of an environment perceived to be supportive of heavy drinking, the individual may feel pressure to drink heavily to fulfill their desire to belong to the community. To address the misconception of alcohol use, social norming campaigns have been designed to educate

the campus community about the actual alcohol use and, combined with other efforts, have the ability to reduce drinking by convincing students that drinking is not as prevalent as perceived.

Consequences of Alcohol Misuse

Although students glorify the effects of alcohol use, alcohol abuse can cause long-term negative consequences. The most commonly reported negative consequences of alcohol use are high-risk behaviors, academic problems, violence, and behaving in a manner that was later regretted (Duncan et al., 2005; Kaly et al., 2002; White et al., 2005). Students who binge drink put themselves at risk for poor decision-making that can lead to irreversible outcomes.

Kaly et al. (2002) used two theories to explain risky behavior associated with alcohol use: disinhibition theory and alcohol myopia theory. The disinhibition theory suggests that alcohol consumption induces risky behavior regardless of the circumstances. The alcohol myopia theory posits that intoxicated people lose the cognitive skills necessary to recognize cues present in their environment that are either impelling or inhibiting. For instance, when an intoxicated person is contemplating sexual intercourse, an impelling cue could be the feeling of sexual arousal and an inhibiting cue could be acquiring a sexually transmitted disease. According to this theory, many people take part in high-risk behaviors because impelling cues are more salient than inhibiting cues after alcohol consumption.

According to Kaly et al. (2002), 58% of males and 48% of females reported alcohol use immediately prior to their first sexual intercourse experience. According to Hingson et al. (2005), more than 100,000 college-aged students reported being victims of

alcohol-related sexual assault or date rape; and a report by the U.S. Department of Health and Human Services (2002) indicated 100,000 students reported being too intoxicated to know if they consented to having sex.

Another high-risk behavior associated with alcohol use is driving under the influence. Gustin and Simons (2008) investigated the variables of perceived risk associated with driving under the influence of alcohol. They reported that individuals chose to drive under the influence of alcohol when the driving distance was short or based on influences from the group. The influence of the group can be associated with the decision to drive under the influence due to being the least intoxicated person in the group or can discourage individuals within a group from driving under the influence based on perceived risk. Gustin and Simons found that individuals were less likely to drive under the influence when the perceived likelihood of arrest or an accident was present.

In addition to high-risk sexual behavior and the public health and safety concerns of driving under the influence of alcohol being consequences of alcohol use, lack of academic success has been linked to binge drinking. Binge drinking has been associated with missing class and falling behind in school work for male students (Korcuska & Thombs, 2003). Korcuska and Thombs also found that alcohol misuse was higher in men who had lower GPAs but had relatively high needs for success and power. A report by the U.S. Department of Health and Human Services (2002) indicated that approximately 25% of college students reported academic consequences associated with drinking, including missing class, falling behind, doing poorly on exams or papers, and receiving lower grades overall.

Some researchers have argued that the relationship between alcohol use and academic performance appears somewhat disconnected. For example, Paschall and Freisthler (2003) conducted a study that suggested heavy alcohol use, alcohol-related problems, and drinking opportunities did not have an important effect on academic performance in college. They concluded that high school alcohol use and high school GPA were predictors of college alcohol use and college GPA. However, Presley and Pimentel (2006) concluded that

although many students accurately estimate that they are not likely to destroy their educational careers, become alcoholics, or die, the fact remains that their alcohol use has a high probability of degrading the quality of their lives, through cumulative negative consequences. (p. 330)

Presley and Pimentel (2006) conducted a study to examine the differences in consequences associated with problematic drinking. Presley and Pimentel defined two categories of drinkers, "heavy drinkers" and "heavy and frequent drinkers." Heavy drinkers were defined as those who consumed five or more drinks in a setting for men and four or more drinks in a setting for women, at least once per week. Heavy and frequent drinkers were defined as those who consumed five or more drinks in a setting for men and four or more drinks in a setting for women, at least three times per week. Presley and Pimentel found that heavy and frequent drinkers were twice as likely to experience negative consequences as heavy drinkers. The negative consequences included performing poorly on a test, arguing, becoming nauseated or vomiting, damaging a personal or social relationship, damaging property, missing a class, having a

memory loss, doing something they later regretted, and trying unsuccessfully to stop drinking.

The negative consequences associated with high-risk drinking among college students also impacts the greater community. The secondhand effects of alcohol use can impact neighbors in the residential community on campus, neighbors outside of the institution, classmates, and town and gown relationships with the institution. According to the U.S. Department of Health Human Services 2002 report, the most common secondhand effects included interrupted sleep or study; the need to care for an intoxicated friend; insults or humiliation; serious arguments; unwanted sexual advances; property damage; personal attacks such as pushing, hitting or assault; and sexual assault or date rape. Off-campus effects included vandalism, noise, and litter. These effects were more likely to impact people who resided close to an institution with high rates of high-risk drinking and near institutions that had nearby establishments that served alcohol.

According to Wechsler and Nelson (2006), the negative health and social consequences experienced by high-risk drinkers during their college career were only the beginning of what could be long term negative consequences that impacted that lives of students, their friends, and their families. The negative consequences associated with alcohol use among college students can lead to potential long term effects including sexually transmitted diseases, academic failure, or fatalities. Students who abuse alcohol are likely “to create problems for other students and residents of local neighborhoods such as, physical and sexual assaults, vandalism, needing to be taken care of by others, insults and humiliation, and preventing others from studying and sleeping” (White et al.,

2005, p. 283). It is imperative that higher education professionals take note of the highlighted issues and focus on policies and programs for prevention.

Assessment and Prevention Strategies

Members of Congress recognized the need to address the alcohol problem on college campuses and did so by supporting legislation to control alcohol use and misuse. The Drug-Free Schools and Communities Act (DFSCA) and Drug-Free Schools and Campuses Regulations require that any institution of higher education that receives any form of federal funding must certify that it has a program to prevent the unlawful possession, use, or distribution of illicit drugs and alcohol by students and employees. Research supports that campus alcohol policies play a role in the campus alcohol culture (DeJong, Towvim, & Schneider, 2007; Rhodes, Singleton, & McMillan, 2005). The campus alcohol climate has been identified as a strong indicator for high-risk drinking; however, students typically overestimate the amount of alcohol their peers consume. This phenomenon has been addressed through social norming campaigns designed to dispel myths about the campus drinking culture (Duncan et al., 2005; Johannessen, Glider, Collins, Hueston, DeJong, 2001; Korcuska & Tombs, 2003). The National Institute on Alcohol Abuse and Alcoholism (2005) recommended that universities use a variety of approaches to address high-risk drinking among college students, including peer educators, campus alcohol policies, public policy, and social norming campaigns. A combined approach has the potential to meet the needs of various campus groups such as racial minorities, Greek organizations, and athletes.

Prior to determining the appropriate course of action to address the alcohol concern on campus, institutions must assess the campus drinking culture. This could be

accomplished by using a variety of evaluation techniques or tools. Based on a report from the NIAAA (2005), researchers rely on five key national sources of data for exploring drinking among college students. The data sets are the Harvard School of Public Health College Alcohol Study, the Core Institute, Monitoring the Future, the National College Health Risk Behavior Survey, and the National Household Survey on Drug Abuse. Each source of data has different characteristics related to the population coverage, methodology, instrumentation, and period of data collection. The Harvard School of Public Health College Alcohol Study has focused on alcohol use and misuse among college students and has provided assessments of alcohol use and related attitude, beliefs, and behaviors. The Core Institute is funded by the Drug Prevention in Higher Education Program and the Core Alcohol and Drug Survey was specifically designed for use with college students. The Core Institute's Alcohol and Drug Survey Long Form has focused on the use of alcohol and other drugs and alcohol-related attitudes, beliefs, and behaviors. The Monitoring the Future instrument is funded by a series of grants from the National Institute on Drug Abuse and has provided longitudinal data related to students prior to high school graduation, college students, and same-age peers of college students. It has also provided information about tobacco and other drug use. The National College Health Risk Behavior Survey was a one-time study conducted between January and June of 1995 by the Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion. The data included 4,800 students and provided information on health risk behaviors including alcohol and drug use. The National Household Survey on Drug Abuse included a series of surveys collected through in-home interviews. The data included 4,800 respondents defined as college student and more than

7,000 of college age but not defined as college students. The study is ongoing and has provided data about a broad range of substance abuse behaviors.

According to the NIAAA (2005), the Core Alcohol and Drug Survey was designed to be used with college students and has been identified as a nationally recognized assessment tool. The Core Alcohol and Drug Survey Long Form was designed to explore the self-reported use, perceptions of use, and opinions about the use of alcohol and other drugs on college campuses of all sizes. The data can be generated to accommodate the examination of subgroups including participant ethnicity, extracurricular activities, academic history, and other relevant categories that facilitate the exploration of covariates. These components of the Core Alcohol and Drug Survey Long Form have made it a widely utilized evaluation tool with post-secondary institutions.

The primary goal of the assessment tool or methodology should be to evaluate the campus culture of drinking, and prevention efforts should be designed accordingly. According to a report produced by the U.S. Department of Health and Human Services (2002), a comprehensive environmental management approach to addressing the drinking culture could address a variety of concerns associated with alcohol use among college students. Based on the data provided in the report, major environmental contributors to the alcohol problem include the availability of alcohol, aggressive marketing and promotion of alcohol, excessive unstructured free time for students, inconsistent policy enforcement, and inaccurate student perceptions of alcohol use. The knowledge of these environmental factors could help determine the path for prevention efforts.

A key component in the success of high-risk alcohol reduction efforts has been the involvement of peers in the promotion of healthy behaviors. Research has indicated

that peer education groups have proven to be successful at addressing campus alcohol issues. Peer education groups are generally grassroots efforts initiated by students who wish to make a difference in the campus environment. The National Institute on Alcohol Abuse and Alcoholism singled out peer educators as one of the most influential change agent groups on campus (Hunter, 2004). Student groups are typically more effective than initiatives imposed by administrators because students are more likely to listen to their peers. Students sometimes believe that administrators have hidden agendas and are less trustworthy. Peer educators have the ability to talk with other students in informal settings such as intramural games, parties, and other social events. They can share their information with roommates, sorority sisters or fraternity brothers, teammates, and classmates (Hunter; Vicary & Karshin, 2002). Based on a study reported by Hunter referencing the success of peer educators' outreach,

95 percent reported that they had directly affected another person in a positive way, 82 percent said they had taught new information, 64 percent believed they had changed an attitude or perception, and 55 percent reported they had confronted or challenged a risky behavior in the previous year. (p. 3)

The key components to fostering successful peer education groups are appropriate training, support, and recognition. According to Hunter (2004), in order for peer education groups to be successful, they must be provided with a minimum of between 10 and 25 hours of training. During training they should be introduced to topics such as "social norming theory, listening skills, confrontation skills, referral skills, programming strategies, information on role modeling and ethics, stress and time management, and marketing skills" (Hunter, 2004, p. 4). Peer educators must be provided with the financial

means to carry out their charge and must receive support from both faculty and staff. It is imperative that faculty and staff serve as resources and familiarize themselves with campus resources such as the counseling center (Hunter; Vicary & Karshin, 2002).

Finally, peer educators should be recognized among the top student leaders on campus, alongside student government officers (Hunter). They are the student group with one of the most difficult missions and should be recognized for their efforts to improve the campus community.

In conjunction with programmatic efforts, institutions should review the policies and procedures that govern alcohol use and its consequences. Most colleges and universities provide guidance regarding the people who can use alcohol, places in which it can be consumed, and the type of circumstances that warrant its presence. The legal drinking age of 21 provides an age standard, but is usually not consistently enforced at events such as tailgates (Vicary & Karshin, 2002). Inconsistent enforcement by residence life staff, university police, and administrators sends mixed signals and provides students with opportunities to drink. Some campuses have attempted to adopt the “dry” concept, which entails the ban of alcohol consumption on campus (O’Hare, 2005; Vicary & Karshin, 2002). Although rates of secondhand alcohol-related consequences were reportedly reduced on campuses that did not allow any alcohol to be consumed on campus, the expectation of a “dry” campus is somewhat unrealistic and has mixed success. According to a recent study reviewed by Toomey et al. (2007), researchers reported that students attending schools that banned alcohol use on campus were 30% less likely to be heavy episodic drinkers and more likely to be abstainers, compared with

students attending schools that did not ban alcohol, whether they were high-risk alcohol users in high school or not.

By examining policies of peer institutions and knowing the campus population, higher education professionals can use programmatic efforts and policy examples to help combat alcohol abuse on campus. Some institutions have incorporated parental notification into their sanctioning, using the 1998 Amendment in the Family Educational Rights and Privacy Act that permits colleges to release disciplinary records to the parents of students who are financially dependent on their parents. The theory behind parental notification is that students are concerned that their parents might infringe upon their freedom by imposing restrictions (Vicary & Karshin, 2002). The most successful risk reduction programs incorporate a combination of programmatic, educational, and sanctioning approaches (Newman, Shell, Major, & Workman, 2006; Stewart, 2002; Wechsler, Seibring, Liu, & Ahl, 2004).

Additionally, colleges and universities should initiate a partnership with local and state law enforcement to reduce the community-wide health risks associated with college student alcohol use. The U.S. Department of Health and Human Services (2002) recommended that universities partner with law enforcement to set up drinking and driving check points, lobby for legislation to lower the blood alcohol concentration tolerance, and monitor the advertisement and media portrayal of alcoholic beverages. Toomey et al. (2007) conducted a review of the literature and found empirical studies that supported the success of state and community bans against the sale of beer kegs. Additionally, compliance checks were found to be effective methods of holding establishments accountable for selling only to people who are of legal drinking age. The

compliance check entailed a decoy underage person attempting to purchase alcohol under the supervision of law enforcement. Likewise, campus alcohol policies can support the effort to reduce alcohol consumption by not permitting beer kegs at campus events (Toomey et al.).

A proactive approach to addressing alcohol use through university policy is the concept of implementing a medical amnesty policy. Medical amnesty policies are designed to encourage students who potentially need medical treatment for alcohol poisoning to seek treatment without the fear of disciplinary repercussions from the university. Such policies typically protect the student who received medical treatment or evaluation and the person who contacted emergency personnel (Lewis & Marchell, 2006; Oster-Aaland & Eighmy, 2007). Students involved in the incident would likely be required to participate in an alcohol education program and would be held responsible for secondhand consequences of their alcohol use such as vandalism, but would not be subjected to other disciplinary sanctions related to alcohol use. Research regarding the success of medical amnesty policies is somewhat limited; however, many educators view these policies as a method of protecting the university from liability and ultimately reducing the risk of death from alcohol-related incidents on campus (Lewis & Marchell).

The evaluation of campus alcohol policies was reported as a key element to defining the success of campus alcohol programs (Toomey et al., 2007). DeJong et al. (2007) were primarily concerned with student perceptions of alcohol policies on campus. They explored the extent to which U.S. college and university students supported a variety of alcohol policies and enforcement strategies designed to reduce alcohol problems on campus and the extent to which they perceived support of those policies by

their peers. Rhodes et al. (2005) were also concerned about student perceptions of alcohol policies but attempted to answer more specific questions about alcohol policies at HBCUs. Rhodes et al. found that 69% of the participants acknowledged that their school had an alcohol policy, but most did not know the specifics of the policy. Although not knowing the specifics of the alcohol policy was not related to binge drinking, gender differences were significant for the relationship between policy knowledge, alcohol education, and binge drinking. The most significant finding for Rhodes et al. was that male students who were not familiar with the policy and had no alcohol education reported more instances of binge drinking compared to male students who were aware of the alcohol policy. DeJong et al. (2007) found that the greatest level of support for the alcohol policy was for stricter disciplinary sanctions for students who engaged in alcohol-related violence. The lowest level of support was for more early Friday morning classes. The most significant contribution to research reported by DeJong et al. was an alarming percentage of students who had misperceptions about the support for alcohol policies. “Whatever percentage of students indicated support for a policy, a smaller percentage reported that other students also supported it. For example, 56.1% supported prohibiting kegs on campus, yet 24% thought other students supported this policy” (DeJong et al., 2007, p. 234).

The attempt to dispel myths about the amount of alcohol consumption through social norming campaigns has received mixed results but has been reported as most successful when combined with other efforts (Stewart, 2002; Toomey et al., 2007). O’Hare (2005) suggested that institutions target at-risk groups to dispel myths about alcohol expectancy and educate students about coping strategies. At-risk groups have

been identified as athletes and members of Greek letter organizations (Barry, 2007; Dams-O'Connor et al., 2007). Although previous research indicated that drinking with friends promoted alcohol abuse, it is also likely that friends help monitor one another's behaviors and help each other make better decisions. For women, having college friends present at an event strongly protected against alcohol problems (Benton et al., 2004; Clapp, Shillington, Segars, 2000). Siebert et al. (2003) reported that Black students were more likely to use harm-reduction strategies than White students, with the exception of using a designated driver. The harm-reduction strategies included eating before or during drinking, keeping track of the number of drinks they consumed, identifying a friend to tell them when they have had enough, determining the number of drinks to consume in advance, and choosing not to drink. These findings encourage programmatic efforts that educate students about risk reduction strategies (Clapp et al.). Additionally, many colleges and universities attempt to provide their own alcohol-free events to keep students from going off campus and falling victim to marketing strategies like "Ladies Night" or "All You Can Drink" events (O'Hare; Vicary & Karshin, 2002).

Multi-faceted approaches to address high-risk alcohol use may include targeting groups and individuals through educational efforts, media campaigns, campus task forces, campus policies, and state and local policies (Newman et al., 2006; Stewart, 2002; Wechsler et al., 2004). The U.S. Department of Health and Human Services (2002) reported that efforts are more successful with the support of top college administrators. Campuses should construct task forces that involve constituents from all areas of the university including faculty, staff, students, high-ranking administrators, and members

from the outside community. Risk reduction efforts should be initiated and guided by the task force and should involve the assessment of efforts.

Conclusion

High-risk alcohol consumption is a pervasive problem for colleges and universities. It is a complex issue that provides many opportunities for further evaluation. A recognized area that needs additional research is racial differences in alcohol use (U.S. Department of Health and Human Services, 2002). Researchers have found that Black students are less likely to participate in high-risk drinking (Broman, 2005; Dunigan, 2004; Humara & Sherman, 1999; Paschall & Flewelling, 2002). It is important to understand the differences in alcohol use based on race and ethnicity to allow college administrators effectively to address the issue of high-risk drinking. By gaining a better understanding of alcohol use for specific groups, administrators can use a more targeted approach to address the health and safety risks posed to many students by high-risk alcohol consumption. Researchers have suggested that motivators to drink are different for Black and White college students; however, the number of studies contributing to the body of literature is limited (Dunigan, 2004; Humara & Sherman, 1999; Paschall & Flewelling, 2002; Siebert et al., 2003).

Chapter II included a review of relevant theoretical and research literature supporting this study. In the following chapter, information will be presented regarding the purpose and design of the study, the research questions addressed, the data collected, and the methodology used to collect and analyze the data.

CHAPTER III: METHODOLOGY

The purpose of the present study was to examine the differences in alcohol use between Black and White college students in a small southern private university setting. The Task Force on College Drinking (2002) emphasized the importance and lack of research for different groups of students, this includes ethnic minorities, members of fraternities and sororities, athletes, women, gay and lesbian students, and students of different ages. "As college and university populations increasingly reflect the significant demographic changes now taking place in the United States, targets and strategies for alcohol efforts may also need modification" (Task Force on College Drinking, 2002, p.1). According to Sicbert et al. (2003), it is important to understand the differences in alcohol use based on race and ethnicity to allow college administrators effectively to address the issue of high-risk drinking. More research is needed that focuses on the differences reflected between the reported rates of alcohol consumed by Black and White students, consequences of alcohol use, and risk-reduction strategies.

Exploratory Study

An exploratory study was conducted during the Fall 2007 academic semester to help define the research questions and affirm the location for the present study. Institutional Review Board approval was obtained from the location of the present study and the University of North Florida (Appendixes G and H). The exploratory study involved two focus group discussions that were designed to ascertain information from current college students regarding perceptions of alcohol use by Black and White students.

The questions for the focus groups were based on previous research regarding racial differences in alcohol use among college students (Appendix I). The focus group participants were divided into two groups based on race, Black and White, to create a comfortable environment for participants to discuss their perceptions of alcohol use. All participants signed an informed consent form (Appendix J).

The focus groups were audio recorded, and the recordings were transcribed by a participant from each of the focus groups. The primary researcher and two colleagues not associated with the research coded the data to extract the themes in the discussions. The themes confirmed different perceptions, based on race, that students possessed regarding alcohol use. The themes extracted from the Black focus group included differences in binge drinking according to race, differences in the familial influence on decision making according to race, differences in the consequences associated with alcohol misuse according to race, differences in the role of religion in decision making according to race, differences in financial priorities according to race.

The themes extracted from the White focus group included college students drink alcohol to be more socially assertive, college students drink alcohol as an expression of freedom from parents, college students drink alcohol due to boredom, and college students impact their coursework due to excessive alcohol use. The following common themes were extracted from both focus groups' participants: alcohol use was a part of the college experience, alcohol use varied according to gender, alcohol use contributed to negative consequences and varied by race, and alcohol use contributed to vandalism of campus property.

Overall, the participants in the Black focus group were comfortable discussing the issue and were quicker to acknowledge and recognize racial differences in alcohol use. The Black participants unanimously agreed that White students were more likely to initiate alcohol use by hosting campus parties and encouraging others to consume alcohol through drinking games. The White participants did not agree that race played a role in alcohol consumption and were less likely to recognize the same differences as the Black participants. The different perceptions and beliefs about alcohol use confirmed the need for further research and education. The extracted themes helped to determine the research questions and confirmed the appropriateness of the university as the location for the study reported here.

Statement of Research Questions

The purpose of the present study was to examine the differences in alcohol use between Black and White college students in a small southern private university setting. Research supports the need to gain a better understanding of group differences in alcohol use among college students in order to develop better prevention and educational efforts to reduce the negative consequences associated with alcohol abuse. The present study sought to address the following research questions:

- RQ 1. Are the perceptions of alcohol use and the self-reported use of alcohol different for Black and White college students at a small private university in the southeast United States?
- RQ 2. Are motivators for alcohol use different for Black and White college students?
- RQ 3. Does any combination of factors predict alcohol use?

Conceptual Design of the Study

The conceptual design of the present study was based on ecological theory. Ecological theory offers an explanation for human behavior and decision-making and can be applied to a college student's alcohol use. According to Bronfenbrenner (1979), the ecological perspective suggests that researchers must be attentive to an individual's immediate and external environments when evaluating human behavior. An individual's behavior is a reflection of both influences, which include an individual's culture and subculture. When exploring alcohol use and college students, the researcher must account for the ways that the college environment and the student's cultural environment both play a role in decision making (Jones et al., 2007; Wagner et al., 2006).

The Core Alcohol and Drug Survey Long Form was designed to collect data regarding participants' living environment, social influences, ethnic background, and family history of alcohol and drug use (Appendix A). The questions regarding only alcohol use were used for this study. The survey questions regarding alcohol and drug use were eliminated from the data analysis. These influences are recognized by the ecological perspective as important concepts of the developing person, which influences decision making.

According to Bronfenbrenner (1979), the ecological perspective is related to the conception of the developing person, of the environment, and of the evolving interaction between the two. The ecological environment is a conceived set of nested structures as presented in Figure 1. The first structure is the developing person, as interpreted by the researcher. Development can occur in an academic setting, home, or living environment, such as a college campus.

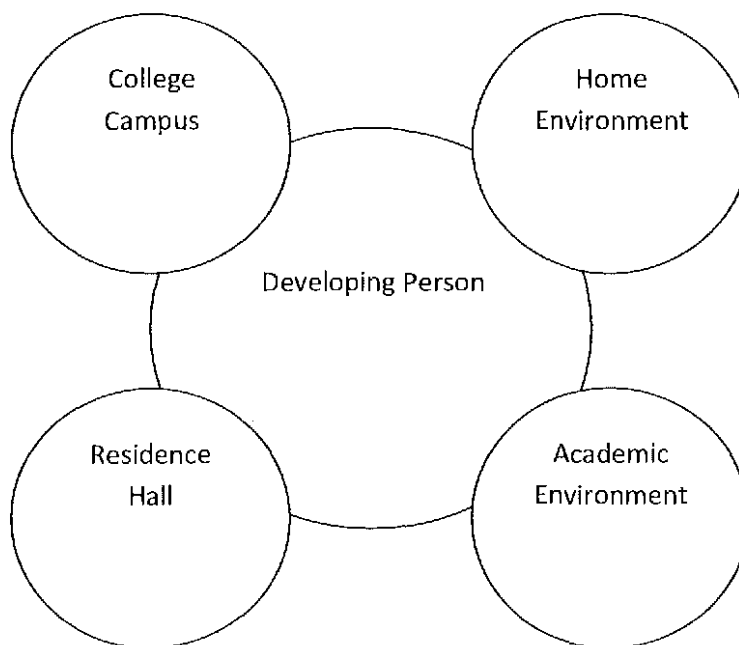


Figure 1. Set of nested structures

The second level of development involves the developing relationship between the person and the setting as presented in Figure 2, as interpreted by the researcher. Ecological theory illustrates how college student drinking is affected by multiple levels of influences including individual, group, institutional, community, and public policy (DeJong & Langford, 2002).

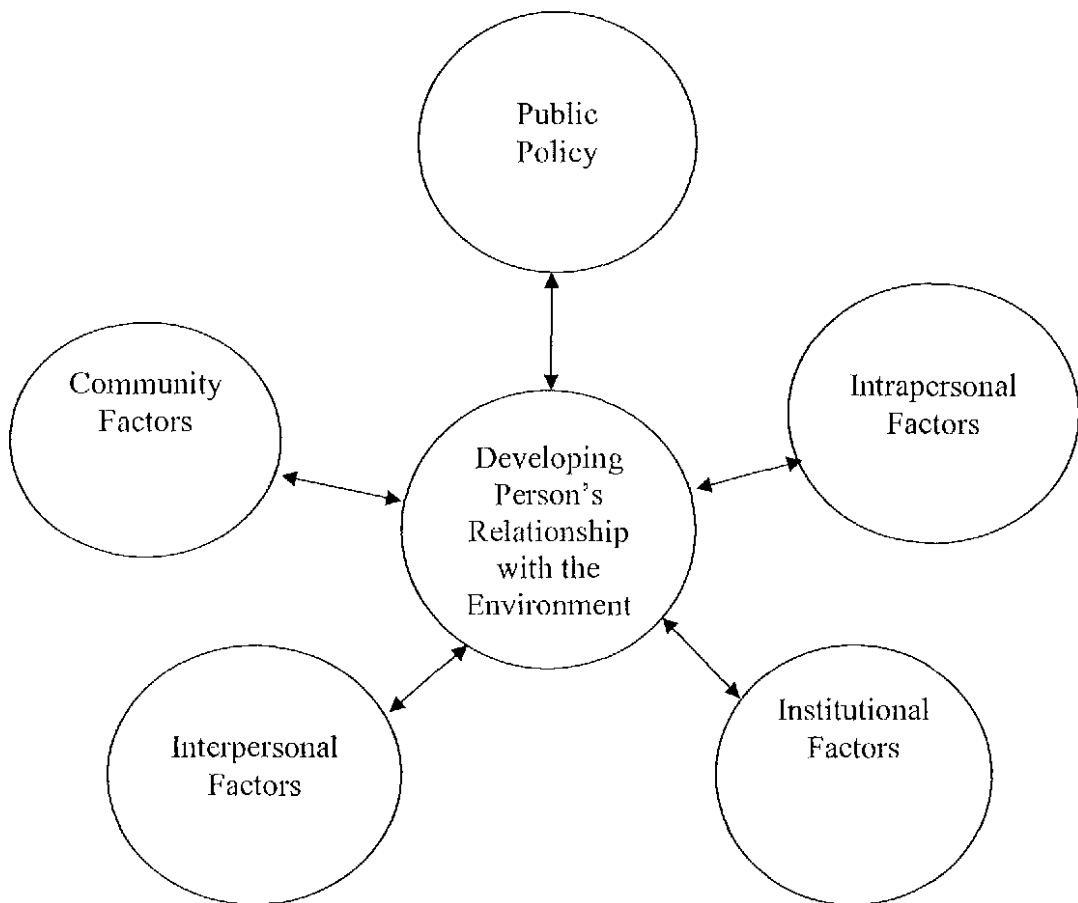


Figure 2. The developing relationship between the person and the setting

The third level of the ecological environment suggests that a person's development is affected by events occurring in settings in which the person is not present (Figure 3). This setting may include a parent's workplace or sibling's environment.

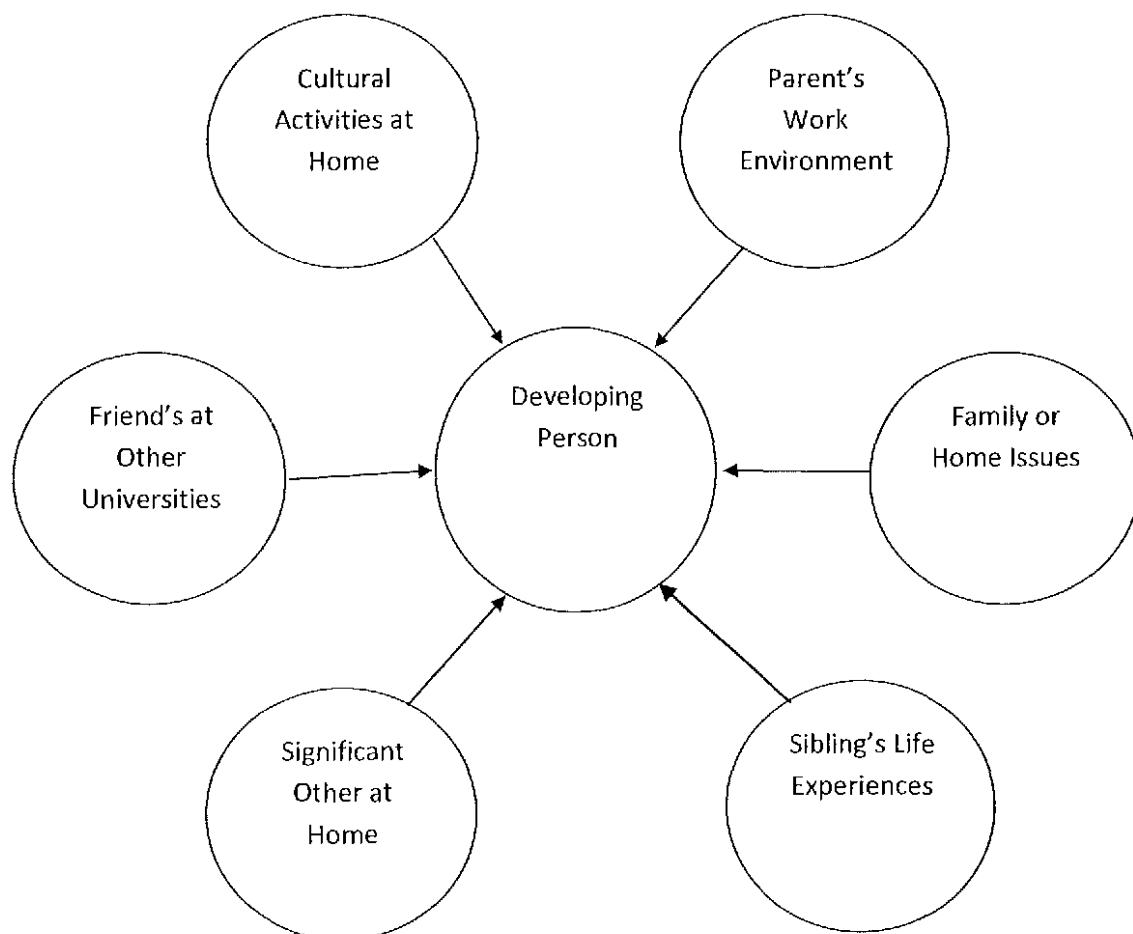


Figure 3. The influence of events occurring in settings in which the person is not present.

Intertwined in the three levels of structure is an individual's culture or subculture. One of the primary influences of behavior and development is the environment as it is perceived rather than as it may exist in objective reality. The perceived environment is a widely explored topic in the field of college alcohol use and social norms, which reinforces ecological theory as a framework for studying alcohol use among college students.

As illustrated, the person's environmental influences, cultural influences, and relationships are intertwined to play a role in decision making. These factors are important to consider in a college student's perception of alcohol use and motivation to consume alcohol. The concepts illustrated in the figures represent the developmental process that influences a student's decision making and the role of culture in the relationship to personal environment. Ecological theory defines the conceptual design of the present study by demonstrating the need to consider the multiple aspects of the college environment and the way that the various environmental and cultural influences impact decision making and perceptions. The selected survey instrument, Core Alcohol and Drug Survey Long Form, has been selected based on its match to the research questions and its inclusion of environmental and cultural influences.

Setting

The participants were selected from a small private independent liberal arts university in the southeastern United States. The student population represented 45 states, 50 countries, and 2 territories. The total student to faculty ratio was 14 to 1 with an average undergraduate class size of 16 students. The percentage of undergraduate students who received Pell Grants during the Fall 2008 semester was 29.8% and the average financial aid grant/scholarship was \$10,886. The traditional student-athlete population was 26% which included 11 Women's Division I athletic sports and 9 Men's Division I athletic sports. The first-time freshmen retention rate was 63% and the six-year graduation rate was 41%.

As illustrated in Table 1, the total undergraduate university population at the time of the study was 0.7% Native American/Alaskan; 20.5% Black, Non-Hispanic; 2.8%

Asian/Pacific Islander; 5.9% Hispanic; 55.8% White, Non-Hispanic; 2.5% Non-Resident Alien; and 11.7% unknown.

According to the disciplinary statistics collected by the Division of Student Life, there were a total of 214 alcohol policy violations adjudicated during the 2008-2009 academic year. White students represented 63% of the alcohol policy violation cases adjudicated, and Black students represented 11% of the alcohol policy violation cases adjudicated.

Data Collection, Sampling, Consent, and Confidentiality

The present site was one of 15 universities in the state of Florida selected to participate in the Core Alcohol and Drug Survey. The Florida Higher Education Alliance for Substance Abuse Prevention, with funding from the Department of Children and Families, contracted with the University of Central Florida to conduct the 2008 Florida Core study. Universities were selected based on region, previous participation in the Core Alcohol and Drug Survey, and university type. All university identifiers were stripped from each participating university, and an aggregate state data file was compiled for the University of Central Florida investigators. The grant from the Department of Children and Families covered a \$350 stipend to be used for the incentive program and the cost of 300 electronic surveys (Appendix C).

As an employee at the university that was the setting in this study, I was responsible for securing Institutional Review Board approval, obtaining contact information for the collection sample, developing a consent and confidentiality agreement, designing an incentive program for participants, and acting as the liaison to the primary researchers at the University of Central Florida and the Core Institute.

Approval from the Institutional Review Board at the participating university and the University of North Florida were secured prior to the commencement of the study (Appendices D and E).

To ensure consistency in the method of data collection, the CORE institute sent the correspondence to students requesting their participation, compiled the data, and provided participating universities with a disk that contained raw data. All participating universities collected data during the same timeframe, from October 6, 2008 until October 28, 2008. All participants at each university received the first request for participation within a 24 hour timeframe. The email addresses of all full-time traditional baccalaureate degree-seeking undergraduates, 18-30 years of age, enrolled at the institution's main campus location, were obtained from the university's registrar's office ($n = 1,918$) and submitted to the primary researcher at the Core Institute. The Core Institute had many safeguards in place for protecting personal information and anonymity of participants, which included removing all IP addresses and compiling the raw data at the Core Institute. Participants received an email from the CORE Institute, which appeared to come from the primary researcher at the participating institution, with a link that was provided for them to complete the survey online. Once participants accessed the link, they were prompted to begin the survey after reviewing the consent letter for participation (Appendix F). Participants completed the electronic survey and submitted it online to the Core Institute. All responses were confidential and anonymous with the only identifying information being a code for the university the student attends.

To encourage student participation, the first twenty participants to complete the electronic survey were given 2 free movie passes for a local movie theater. To verify

participation, the participants were required to print and return the final page of the survey that demonstrated their completion of the survey. Additionally, I spoke at student organization meetings to request their participation in the survey. The organizations included the Black Student Union, Residential Life staff meetings, Interfraternity Council, and Panhellenic Council. I sent a reminder email to the full-time traditional baccalaureate degree-seeking undergraduates, 18-30 years of age, enrolled at the institution's main campus location every 3 days during the designated timeframe for data collection, October 6, 2008, through October 28, 2008.

Methodological Design of the Study

The present study was designed to use descriptive and inferential statistics to analyze the data that were collected. A quantitative research design was followed to find the association between the dependent and independent variables. This design allowed the researcher to compare mean scores of groups to determine if differences existed between Black and White college students' perceptions and self-reported use of alcohol.

The survey data were analyzed using analysis of variance (ANOVA), difference of proportions, confidence intervals, and multiple regression analysis. ANOVA allowed testing for differences between the two levels of the ethnicity variable, Black and White college students (Creswell, 2005). The greatest gap in research involving ethnicity and alcohol use exists between Black and White college students, which indicated the need for additional research about possible differences between the two populations (Broman, 2005; Higher Education Center for Alcohol and Other Drug Abuse and Violence Prevention, 2001; Wilke et al., 2005). The independent variable was ethnicity and the dependent variables were the responses to the survey questions related to the self-

reported alcohol use during the two weeks prior to taking the survey and the self-reported alcohol use during the 30 days prior to taking the survey. The difference of proportions and the confidence intervals were calculated to determine whether a difference in motivational factors existed by ethnicity (Agresti, 1996). The independent variable was ethnicity. The dependent variables were the belief that alcohol enhances social activity, makes it easier to deal with stress, gives people something to do, and facilitates sexual opportunities. The multiple regression analysis allowed examination of the variables that predict alcohol use (Salkind, 2004). The independent variables were gender, ethnicity, grades, involvement in a social fraternity or sorority, involvement in a religious or interfaith organization, facilitates sexual opportunities, and makes it easy to deal with stress. The dependent variable was the self-reported alcohol use during the two weeks prior to taking the survey.

Data Analysis

The Core Institute provided the participating university with a disk that contained the raw data collected from the university's sample. The Statistics Package for Social Sciences (SPSS) was used to analyze the data. Data were analyzed using the statistical tests ANOVA and multiple regression analysis. Table 3 summarizes the use of statistical tests based on the research questions.

Table 3

Description of Statistical Procedure by Research Question

Research Question	Statistical Procedure	Independent Variables	Dependent Variables
RQ 1	ANOVA	Ethnicity	Self-reported alcohol use during the two weeks prior to taking the survey. Self-reported alcohol use during the 30 days prior to taking the survey.
RQ 2	Difference in Proportions Confidence Intervals	Ethnicity	Belief that alcohol: “Enhances social activity” “Makes it easier to deal with stress” “Gives people something to do” “Facilitates sexual opportunities”
RQ 3	Multiple Regression Analysis	Gender Ethnicity Grades Involvement in Social Fraternity or Sorority Involvement in Religious or Interfaith Organization Facilitates Sexual Opportunities Makes it easy to deal with stress	Self-reported alcohol use during the two weeks prior to taking the survey.

Instrument Reliability and Validity

According to the Validity and Reliability Core Alcohol and Drug Survey Long Form (2005) document, The Core Alcohol and Drug Survey, specifically created for use with college students, was designed to describe, by self-report, behaviors and perceptions of alcohol and drug use on campuses. The data to analyze the reliability of items were collected using the Core Alcohol and Drug Survey Long form. This survey instrument was selected for the present study based on the comprehensive nature of the instrument and the ability of the instrument to address the research questions.

The content-related validity for the Core Alcohol and Drug Survey Long Form was established using existing instruments, and literature was reviewed to ensure that major aspects, consequences, and types of alcohol and drug use were adequately covered by items on the survey. The content validity of an instrument demonstrates the degree to which the samples of items on the test are representative of a domain of content. A panel was convened to review the items to ensure that the construction of the instrument sampled the domains of interest. The threshold for inter-rater agreement for item inclusion was .90 (Validity and Reliability Core Alcohol and Drug Survey Long Form, 2005). Inter-rater agreement indices may range from .00 to +1.00, with a higher number indicating a stronger agreement (Salkind, 2004). Test-retest reliability reflects the consistency with which individuals respond to the survey items on different occasions. The Pearson product-moment correlation coefficient (r) was used to show the correlation value. (Validity and Reliability Core Alcohol and Drug Survey Long Form, 2005).

Internal consistency was estimated using Cronbach's alpha and item-to-total-test correlations. Cronbach's alpha and item-to-total test correlations were performed on

selected questions of the Core Alcohol and Drug Survey Long Form. The item-to-total scores for Core Alcohol and Drug Survey fell between .3 to .7 in almost all cases. For inclusion, the item-to-total-test correlation should fall between .3 to .7 (Validity and Reliability Core Alcohol and Drug Survey Long Form, 2005).

According to the NIAAA (2005), the Core Alcohol and Drug Survey was recognized as one of five key national sources of data relied upon in the field of alcohol education and prevention. The Core Institute is funded by the Drug Prevention in Higher Education Program of the Fund for the Improvement of Postsecondary Education of the U.S. Department of Education. The Core Institute, housed at Southern Illinois University, provides nationally recognized assessment of college student perceptions about the use of alcohol and other drugs.

Limitations

The limitations of the present study included the self-report design and electronic data collection method. Although data collected using the Core Alcohol and Drug Survey Long form demonstrated strong reliability and validity, the self-report design raised concerns about participant honesty. According to the Core Institute, the desired number of responses for an institution in the size range of the participating institution is 400 responses. However, the grant received from the Department of Children and Families that funded the project covered the cost of 300 surveys for the participating institution, which reflected the importance of collecting a minimum of 300 survey responses. According to Shannon and Bradshaw (2002), the benefits of electronic surveys include the response time and cost, but concerns remain about the access of populations and comfort of participation. Electronic surveys pose potential technological issues such as

recipients receiving the survey and feeling uncomfortable with the issue of confidentiality. These limitations were concerns for the present study as well.

Summary

The methodology outlined in this chapter provides the statement of research questions, description of the conceptual design of the study, description of the methodological design of the study, setting, instrument reliability and validity, data collection information, exploratory study information, data analysis information, and limitations of the study. The results were tabulated and analyzed statistically using SPSS. The statistical data analysis will be discussed in Chapter IV. The implications, conclusions, and recommendations for further research will be presented in Chapter V.

CHAPTER IV: FINDINGS

The purpose of this study was to examine the differences in alcohol use between Black and White college students in a private university setting in the southeast United States. The Core Alcohol and Drug Survey Long form was electronically distributed to all full-time traditional baccalaureate degree-seeking undergraduates, 18-30 years of age, enrolled at the research site's main campus. Participants were surveyed about their frequency of alcohol and drug use, perception of alcohol and drug use among the student population, desired effects of alcohol use, and negative consequences experienced because of personal alcohol use. In an effort to provide a frame of reference for the findings associated with the research questions, an overview of the collected data is presented.

Overview of the Data Collected

The survey yielded 307 completed surveys, a 16.1% return rate. The ethnic make-up of the participants included 0.7% American Indian/Alaskan Native, 16.1% Black (non-Hispanic), 5.2% Asian/Pacific Islander, 6.8% Hispanic, 65.1% White (non-Hispanic), and 5.2% Other. Males represented a smaller proportion of the complete surveys ($n = 125$) than females ($n = 179$). Students who reported living on campus represented more respondents ($n = 225$) than students who reported living off campus ($n = 79$). Participants involved in intercollegiate athletics represented 23.4% of the respondents, and students who participated in intramural or club sports represented 39.7% of the respondents.

Members of social fraternities or sororities represented 42.7% of the survey participants. Students who indicated being members of religious groups represented 33.2% of the participants.

According to responses to the survey question regarding personal alcohol use during the two weeks prior to completing the survey, 50.8% of the respondents reported they had not consumed five or more drinks in a sitting; 28.9% reported consuming five or more drinks in a sitting once or twice; 11.4% reported consuming five or more drinks in a sitting three to five times; 5.9% reported consuming five or more drinks in a sitting six to nine times, and 1.6% reported consuming five or more drinks in a sitting ten or more times (see Table 4).

Table 4

Frequency of Five or More Drinks in a Sitting during the Two Weeks Prior to the Survey

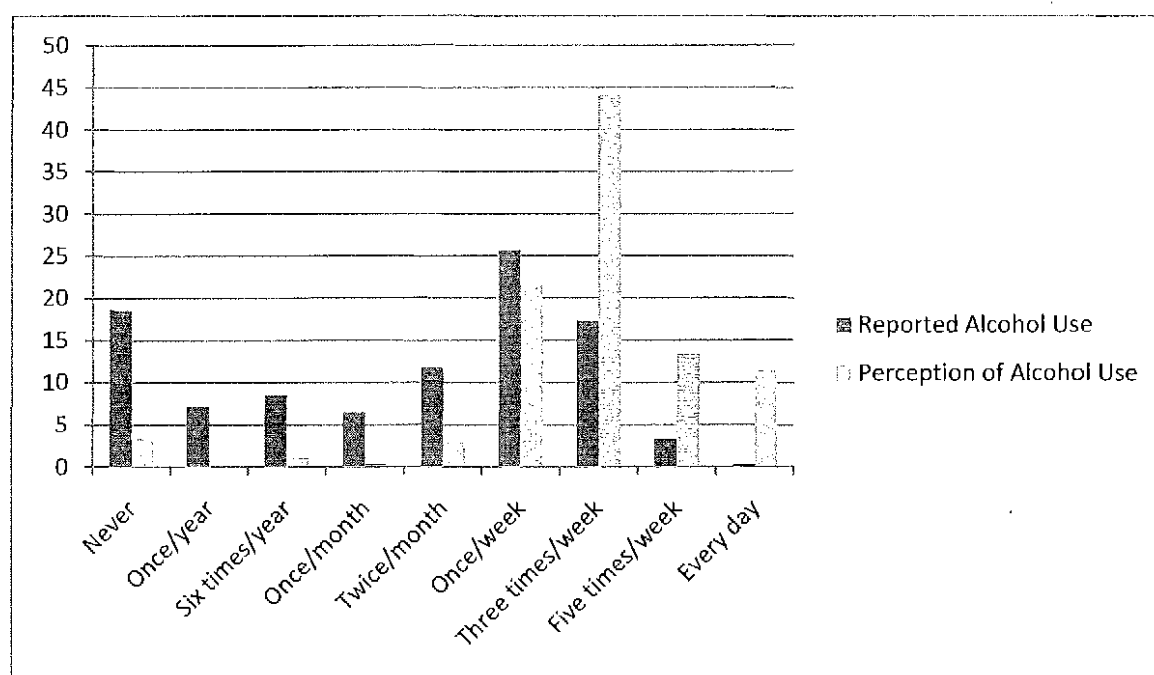
	Frequency	Percent
Never	156	50.8
Once	50	16.3
Twice	39	12.7
Three to Five Times	35	11.4
Six to Nine Times	18	5.9
Ten or more times	5	1.6
Total	303	98.7
Missing	4	1.3
Total	307	100.0

The perception of alcohol use during the year prior to the survey was much higher than reported use of alcohol during the year prior to the survey (see Figure 4). Reported alcohol use during the year prior to the survey ranged from never used (18.6%), to

once/year (7.2%), six times/year (8.5%), once/month (6.5%), twice/month (11.7%), once/week (25.7%), three times/week (17.3%), five times/week (3.3%), and every day (0.3%). The perceived use of alcohol during the year prior to the survey ranged from never used (3.3%), to six times/year (1.0%), once/month (0.3%), twice/month (2.9%), once/week (21.5%), three times/week (44.1%), five times/week (13.4%), and every day (11.4%). These findings are notable based on the research on social norming that suggests when perceived alcohol use is greater than actual use, students are more likely to consume alcohol to be part of perceived mainstream behavior.

Figure 4

Perceived Versus Self-Reported Alcohol Use During the Year Prior to Taking the Survey



Additionally, drinking was perceived as a central part in the social life of several groups on campus. Eighty-two percent of the survey participants responded that drinking is central in the social lives of male students. Seventy-five percent of the survey

participants responded that drinking is central in the social lives of female students. Likewise, 85.7% of participants responded that drinking is central in the social lives of fraternities, and 79.8% of participants responded that drinking is central in the social lives of sororities.

The preceding overview of the data was intended to provide a frame of reference for the collected and analyzed data in order to address the primary research questions guiding the study. The data set was modified to reflect only the responses of Black (non-Hispanic) and White (non-Hispanic) participants, which allowed the researcher to narrow the focus of the data for the purpose of addressing the primary research questions.

The primary research questions were:

RQ 1. Are the perceptions of alcohol use and the self-reported use of alcohol different for Black and White college students at a small private university in the southeast United States?

RQ 2. Are motivators for alcohol use different for Black and White college students?

RQ 3. Does any combination of factors predict alcohol use?

Research Question I

Are the perceptions of alcohol use and the self-reported use of alcohol different for Black and White college students at a small private university in the southeast United States?

One-way analysis of variance (ANOVA) was used to determine whether a difference in the self-reported use of alcohol and perception of alcohol use existed

between Black and White college students who participated in the survey. The dependent variables were the number of self-reported times a survey participant consumed five or more alcoholic drinks in a sitting during the 2 weeks prior to taking the survey, the number of times a participant consumed alcohol during the 30 days prior to taking the survey, and the frequency at which the survey participant thought the average student on campus consumed alcohol. The survey questions used were, “Think back over the last two weeks. How many times have you had five or more drinks at a sitting?” The response options were *none, once, twice, three to five times, six to nine times, and ten or more times*. The response options were coded as 1, 2, 3, 4, 5, 6, respectively. “During the past 30 days on how many days did you have alcohol?” The response options were *zero, once, twice, three-five times, six to nine times, and ten or more times*. The response options were coded as 1, 2, 3, 4, 5, 6, 7, respectively. “How often do you think the average student on your campus uses alcohol? The response options were *never, once/year, six times/year, once/month, twice/month, once/week, three times/week, five times/week, and every day*. The response options were coded as 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, respectively. The independent variable for each analysis was ethnicity, White and Black. The means and standard deviations are reported below in Table 5.

Table 5

Means and Standard Deviations Comparing the Self-Reported Use of Alcohol and the Perception of Alcohol Use

Variable	<i>Perception</i>				<i>Five or More Drinks</i>				<i>Past 30 day Use</i>			
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>d*</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>d*</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>d*</i>
White	199	2.26	1.44		200	3.02	1.58		198	6.93	1.25	
Black	49	1.80	1.21		49	2.33	1.36		48	6.63	1.79	
Total	248	2.17	1.41	.33	249	2.88	1.56	.44	246	6.87	1.37	.21

*Cohen's d values based on $(M \text{ White} - M \text{ Black}) / SD \text{ Total}$

Based on the means reported in Table 4, White participants reported consuming five or more drinks in a sitting between one and two times and Black participants between zero and one time during the two weeks prior to taking the survey. For past 30 day use, White participants reported consuming alcohol between three to five days and six to nine days whereas Black participants reported between one to two days and three to five days. As indicated there was little difference in the perception of alcohol use by the average student on campus. White and Black participants think the average student on campus uses alcohol between one and three times per week.

The ANOVA results are reported below in Table 6.

Table 6

One-Way Analysis of Variance Summary Table Comparing Self-Reported Use of Alcohol and the Perception of Alcohol Use

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Five or More Drinks						
Between groups	1	8.52	8.52	4.34	.038**	.02
Within groups	246	482.37	1.96			
Total	247	490.89				
Past 30 day Use						
Between groups	1	18.93	18.93	7.97	.005***	.03
Within groups	247	586.70	2.38			
Total	248	605.62				
Perception of Alcohol Use						
Between Groups	1	3.70	3.70	1.97	.161	.01
Within Groups	244	457.40	1.88			
Total	245	461.10				

Note. * $p < .15$; ** $p \leq .05$; and *** $p \leq .01$

As indicated in Table 5, there was a statistically significant difference in the self-reported alcohol consumption of White and Black participants for five or more drinks in a sitting and past 30 day use. White participants reported consuming five or more drinks in a sitting and during the 30 days prior to taking the survey more frequently than Black

participants. However, the effect size was small in all instances. These findings are consistent with the literature that indicated White students consume alcohol the most frequently, followed by Hispanic, Asian, and African-American students (Borsari et al., 2007; Broman, 2005; Marx & Sloan, 2003; Siebert et al., 2003). No statistically significant difference was found in the perception of alcohol use by students on campus. These data indicate that Black and White participants perceived students at the research site consume alcohol between one and three times per week. These data indicate the perception of alcohol use is much higher than self-reported use.

Research Question II

Are motivators for alcohol use different for Black and White college students?

Understanding the motivation to drink is an important component to understanding alcohol use. The desired effects of alcohol are often the driving force behind a person's decision to consume alcohol. By gaining a better understanding of students' motivation to drink, professionals should be better equipped to address the root of the problem. The survey question addressed was, "Do you believe that alcohol has the following effects?" The dependent variable was the *yes or no* response to the statements regarding the effects of alcohol including *enhances social activity, makes it easier to deal with stress, gives people something to do, and facilitates sexual opportunities*.

Testing the statistical equivalence of the proportion of Black and White students for each motivation factor requires the estimation of the standard deviation of the difference of two proportions. The estimation procedure presented in the following equations:

$$\hat{\sigma}(p_W - p_B) = \sqrt{\left(\frac{p_W(1-p_W)}{N_W} + \frac{p_B(1-p_B)}{N_B} \right)}$$

and confidence interval of

$$(p_W - p_B) \pm z_{\alpha/2} (p_W - p_B)$$

where p_W is the proportion of White students, p_B is the proportion of Black students, N_W is the number of White student who responded *yes*, and N_B is the number of Black students who responded *yes*. Results are presented below in Table 7.

Table 7

Difference of Proportions and Confidence Intervals for Variables Associated with the Effects of Alcohol

Group	Yes	No	Total	Difference of Proportions	Confidence Interval
Enhances Social Activity				1.359	(-0.049, 0.227)
White	159	39	198		
Black	35	14	49		
Something to do				0.525	(-0.107, 0.183)
White	140	57	197		
Black	33	16	49		
Easy to deal with stress				1.194	(-1.241, 1.425)
White	83	115	198		
Black	16	33	49		
Facilitates sexual opportunities				0.525	(-0.264, 0.040)
White	103	95	198		
Black	31	18	49		

As shown in Table 7, the 95% confidence intervals contained zero; therefore, there was no statistically significant difference identified by ethnicity for the motivational factors related to alcohol use.

The difference of proportions and confidence intervals yielded evidence not to reject the null hypothesis of no statistically significant differences between White and Black survey participants relative to factors known to motivate alcohol use. Based on these data, educational efforts to address college student alcohol use for the desired effects of alcohol should not differ based on ethnicity. These results are inconsistent with the literature that suggested Black college students drink to deal with stress while White college students were more likely to drink for interpersonal or social reasons (Humara & Sherman, 1999; Paschall & Flewelling, 2002).

Research Question III

Does any combination of factors predict alcohol use?

Understanding the predictors of alcohol use is an important component to addressing alcohol misuse on college campuses. A variety of factors have been associated with college student alcohol use including the desired effects of alcohol, the organizations in which students are involved, the level of leadership students assume, and the academic performance of students (Barry, 2007; Brown et al., 2001; Biscaro et al., 2004; Broman, 2005; Humara & Sherman, 1999; Jones et al., 2007). Additionally, moderators such as race, religion, and gender have all been connected to college student alcohol use (Borsari et al., 2007). A series of multiple regression analyses was conducted to determine whether any combination of factors predicted alcohol use. For each analysis, the dependent variable was the self-reported consumption of five or more alcoholic drinks in a sitting during the two weeks prior to taking the survey. Several reduced regression models were used to examine the effect of subsets of the variables. This method of rotating variables in and out of the model revealed which set of variables had

the strongest influence on the dependent variable. The dependent variable was selected based on a definition provided by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) Task Force on College Drinking (2007) that defined binge drinking as five or more drinks in a 2-hour period for males and as four or more drinks in a 2-hour period for females.

The full regression model used to explore the combination of variables that predict alcohol use included the independent variable that approximates cumulative grade point average, ethnicity, gender, interaction between gender and ethnicity, level of participation in a social fraternity or sorority, level of participation in a religious group or organization, motivator to relieve stress, and motivator to facilitate sexual opportunities. In forming the product of the two dichotomous variables, ethnicity (Black coded 1) and gender (female coded 1), the only non-zero product is Black females. Therefore, the effect for Black females is the main effect of Black plus the main effect of female and the interaction effect; the effect for white females is the main effect of gender; for Black males is the main effect of Black, and white male is nothing as it is the reference level. Response options for the variable approximate cumulate grade point average response options were *A, A-, B+, B, B-, C+, C, C-, D+, D, D-, and F* were coded as *13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1*, respectively. The variable ethnicity was coded as White, *0*, and Black, *1*. The variable gender was coded as male as *0*, female as *1*. The response options for the variable participation in a social fraternity or sorority were *not involved, attended, active involvement non-leader*, or *leadership position* and coded as *1, 2, 3, and 4*, respectively. The response options for the variable level of participation in a religious group or organization were *not involved, attended, active involvement non-leader*, or

leadership position and coded as 1, 2, 3, and 4, respectively. The response options for the variable alcohol as a motivator to relieve stress were *no* or *yes* and coded as 0 or 1, respectively. The response options for the variable alcohol as a motivator to facilitate sexual opportunities were *no* or *yes* and coded as 0 or 1, respectively. The response options for the dependent variable “Think back over the last two weeks. How many times have you had five or more drinks at a sitting?” were *none*, *once*, *twice*, *three to five times*, *six to nine times*, and *ten or more times*. The response options were coded as 1, 2, 3, 4, 5, 6, respectively. The independent variables were divided into four clusters, demographics, academics, motivational factors, and social involvement. Each cluster of variables was evaluated to determine which category accounted for the most variance in the dependent variable, five or more drinks in a sitting, while controlling for the other clusters.

The means, standard deviations, correlations, and frequencies can be found in Tables 8, 9, and 10, respectively.

Table 8

Means and Standard Deviations of Continuous Variables

	<i>Mean</i>	<i>SD</i>	<i>N</i>
Grades	9.54	1.88	247
Social Fraternities or Sororities	2.07	1.22	245
Religious Organization	1.53	.80	245

As shown in Table 8, the average grade point average of participants was between a B (9) and B+ (10) average. The average level of participation in social fraternities and sororities was between attended (2) and active non-leader (3). The average level of participation in religious organizations was between not involved (1) and attended (2).

The correlations between the dependent variable and continuous predictor variables are reported below in Table 9.

Table 9

Correlation of the Dependent Variable with Continuous Predictor Variables

	<i>Five or More Drinks</i>	<i>p</i>
Grades	-.222	<.001***
Social Fraternities or Sororities	.425	<.001***
Religious Organizations	-.249	<.001***

* $p < .10$; ** $p \leq .05$; and *** $p \leq .01$

As shown in Table 9, all continuous independent variables are significantly correlated with the dependent variable. Grades were negatively correlated to a small degree which means that as approximate cumulative grade point averages increase, the likelihood of consuming five or more drinks in a sitting decreases. The level of involvement in social fraternities and sororities is positively correlated which means that as the level of involvement in this type of organization increases, the likelihood of consuming five or more drinks in a sitting increases. The level of involvement in religious organizations is negatively correlated with the dependent variable which means

that as the level of involvement in this type of organization increases the likelihood of consuming five or more drinks in a sitting decreases.

The frequency of the five or more drinks in a sitting cross-tabulated across categories of the dichotomous variables is below in Table 10.

Table 10

Frequency of Five or More Drinks in a Sitting for Dichotomous Variables

Five or More Drinks	None	Once	Twice	3-5 Times	6-9 Times	10+ Times	Total
Gender							
Male	18.5%	5.2%	4.4%	6.9%	3.6%	0.8%	39.5%
Female	30.2%	11.7%	8.5%	6.0%	3.2%	0.8%	60.5%
Total	48.8%	16.9%	12.9%	12.9%	6.8%	1.6%	100.0%
Ethnicity							
White	36.7%	13.7%	11.3%	10.9%	6.0%	1.6%	80.2%
Black	12.1%	3.2%	1.6%	2.0%	0.8%	0.0%	19.8%
Total	48.8%	16.9%	12.9%	12.9%	6.8%	1.6%	100.0%
Deal with Stress							
No	35.4%	9.3%	6.5%	6.9%	1.6%	0.0%	59.8%
Yes	13.4%	7.7%	6.1%	6.1%	5.3%	1.6%	40.2%
Total	48.8%	17.0%	12.6%	13.0%	6.9%	1.6%	100.0%
Facilitates Sexual Opportunities							
No	28.9%	7.3%	3.3%	3.4%	1.6%	0.0%	45.5%
Yes	19.9%	9.8%	9.3%	8.5%	5.3%	1.6%	54.5%
Total	48.8%	17.0%	12.6%	13.0%	6.9%	1.6%	100.0%

Table 10 reports the percentage of participants who indicated the frequency at which they consumed five or more drinks in a sitting during the two weeks prior to taking the survey.

A multiple regression analysis was conducted using all variables and subsequent multiple regression analyses were conducted by removing variables from the model according to the category in which they were placed to determine the difference in R^2 compared to the full model (see Table 11).

Table 11

Multiple Regression Analysis Summary (N=241)

Variable	<i>B</i>	<i>SEB</i>	β	<i>p</i>
Constant	-.314	2.77		.910
Grade Point Average	-.097	.044	-.128	.028**
Gender*Ethnicity	-.672	.388	-.994	.085*
Fraternity or Sorority	.407	.066	.351	<.001***
Religious Organization	-.270	.096	-.153	.005***
Easy to Deal with Stress	.440	.167	.153	.009***
Facilitates Sexual Opportunities	.482	.165	.169	.004***

Note. $R^2 = .345$; $F(8,232) = 15.29$; * $p < .10$; ** $p \leq .05$; and *** $p \leq .01$

As shown in Table 11, the largest statistically significant beta coefficient was participation in a social fraternity or sorority. These results indicated that as a student's level of involvement increased in a social fraternity or sorority, the frequency of consuming five or more drinks in a sitting also increased. The beta coefficient for involvement in a religious organization indicated that as involvement increased, the frequency of consuming five or more drinks in a sitting decreased. The motivators

associated with alcohol use also indicated that the desired effects of stress relief and facilitation of sexual opportunities increased the likelihood of consuming five or more drinks in a sitting. Additionally, this model indicated that students with higher cumulative grade point averages were less likely to consume five or more drinks in a sitting. The interaction between ethnicity and gender did have a statistically significant beta, $p < .10$, in the full model.

Below, the clusters of variables and R^2 values are reported in Table 12.

Table 12

Multiple Regression Model

Variables	Reduced Models				
	Full Model	Demographics	Academic	Motivators	Social Organization
Demographic					
Ethnicity	√	-	√	√	√
Gender	√	-	√	√	√
Ethnicity*Gender	√	-	√	√	√
Academic					
GPA	√	√	-	√	√
Motivators					
Sexual Opportunity	√	√	√	-	√
Deal with Stress	√	√	√	-	√
Social Org.					
Fraternity/Sorority	√	√	√	√	-
Religious Org.	√	√	√	√	-
R^2	.345	.317	.329	.263	.199
R^2 Inc.		.028	.016	.082	.146

The full model and each reduced model significantly predicted the consumption of five or more alcohol drinks in a sitting. See Appendices K-R for details regarding the reduced models. The social category accounted for the most variance in the dependent variable, 14.6%. A high level of participation in social fraternities and sororities increased the likelihood that participants consumed five or more drinks in a sitting. However, the level of participation in religious organizations represented a decreased

likelihood that participants consumed five or more drinks in a sitting. The motivational factors accounted for 8.2% of the variance in the dependent variable. The desire to relieve stress and facilitate sexual opportunities increased the likelihood that participants consumed five or more drinks in a sitting. The demographic variables accounted for 2.8% of the variance. Ethnicity and gender were not significant independently; however, an interaction between the two variables was significant in the full and reduced models. The interaction indicated that Black females drink less than White females and males of either ethnicity. Academics only accounted for 1.6% of the variance, which revealed that students with lower approximate cumulative grade point averages were more likely to drink five or more drinks in a sitting.

Overall, these regression models demonstrated that a combination of variables predicts patterns of alcohol use. However, ethnicity was not the strongest predictor when isolated or combined with other variables. The full model indicated that these combined variables predicted 35% of the variance in the dependent variable. The reduced models indicated that the most variance in the dependent variable was accounted for by level of involvement in social organizations (14.6%) followed by the motivational factors (8.2%) demographics (2.8%), and academics (1.6%). These data are important for the purposes of practice because a particular social group was identified as the strongest predictor, when isolated and combined with other variables. Students involved in leadership positions in social fraternities or sororities were identified as more likely to consume five or more drinks in a sitting.

Conclusion

The results of this study indicated that differences based on ethnicity in alcohol use among the survey participants at the research site should be considered in educational and prevention efforts. Research question one addressed the perception of use, alcohol use during the 30 days prior to taking the survey and the frequency at which participants consumed five or more drinks in a sitting. The findings for research question one revealed a statistically significant difference in alcohol consumption based on ethnicity for 30 day use and five or more drinks in a sitting. The findings were not significant for the perception of alcohol use. Research question two was designed to explore the difference in the motivational factors associated with alcohol use and did not reveal statistically significant differences based on ethnicity. Research question three explored a combination of factors as predictors of alcohol use. The data revealed that the strongest predictors of alcohol use were the level of leadership held in social organizations.

Data were primarily consistent with the literature related to differences in alcohol use by ethnic group. The self-reported differences in use for 30 days and five or more drinks in a sitting are consistent with the literature that reported Whites drink more frequently than Black college students (Broman, 2005; Siebert et al., 2003; Wagner et al., 2006). However, there were no statistically significant differences in the motivational factors associated with alcohol use according to ethnicity. These data are contrary to literature that suggested White college students are more likely than Black college students to consume alcohol for the desired social effects such as enhancing social activity and Black college students are more likely to drink for intrapersonal reasons (Biscaro et al., 2004; Kuther & Timoshin, 2003). The findings reported in research

question three are supported by Spratt and Turrentine (2001) who demonstrated the connection between leadership and higher levels of alcohol consumption. The literature also supports the findings that students involved in social fraternities or sororities are more likely to drink more frequently and those involved in religious organizations are less likely to drink frequently (Barry, 2007; Haber & Jacob, 2007). Additionally, research supported the finding that students with lower cumulative grade point averages were more likely to consume five or more drinks in a sitting.

These findings will be summarized according to research question in Chapter V. Additionally, recommendations for practice, implications for further research, and the limitations of the study will be discussed.

CHAPTER V: DISCUSSION

College student alcohol use is a complex problem that exists on campuses across the nation. The complexity of the problem suggests the need to research the issue from many different view points. The literature reviewed indicated the need to research the problem and its nuances based on differences by ethnicity in patterns of alcohol use. The purpose of this study was to examine the differences in alcohol use between Black and White college students in a small southern private university setting. The present study examined the differences in alcohol consumption, with ethnicity as the primary independent variable, by using SPSS to conduct a series of statistical analyses including one-way analysis of variance, difference in proportions, confidence intervals, and multiple regression analysis. A summary of the findings, organized by the research questions, is provided below.

Summary of Findings for Research Question One

Are the perceptions of alcohol use and the self-reported use of alcohol different for Black and White college students at a small private university in the southeast United States?

Research has indicated that when the perception of alcohol use was greater than actual alcohol use, alcohol consumption increased (DeJong & Langford, 2002; Siebert & Wilke, 2007; Toomey, Lenk, & Wagenaar, 2007). The concept behind this theory, commonly referred to as social norming, is related to the student's desire to be part of the mainstream culture.

However, Siebert and Wilke (2007) reported the social norming effect was stronger for White than Black students. Using ethnicity as the independent variable, this research question was designed to examine whether differences in the perception and actual use of alcohol existed, based on ethnicity, among participants at the research site. The survey questions used to address research question one are listed below in Table 13.

Table 13

Survey Questions for Research Question One

Research Question	Self-Reported Use Survey Question	Perception Survey Question
Are the perceptions of alcohol use and the self-reported use of alcohol different for White and Black college students at a private university in southeast United States?	14. Think back over the last two weeks. How many times have you had five or more drinks at a sitting? None, Once, Twice, Three to Five Times, Six to Nine Times, Ten or More Times 18. During the past 30 days on how many days did you have alcohol?	19b. How often do you think the average student on your campus uses alcohol? Never, Once/year, Six times/year, Once/month, Twice/month, Once/week, Three times/week, Five times/week, Every day

The data analyzed using one-way analysis of variance (ANOVA) related to the personal consumption of alcohol revealed a statistically significant difference in means based on ethnicity; however, the data analyzed using ANOVA which addressed the perception of alcohol use on campus did not reveal a statistically significant difference in means.

The survey question regarding five or more drinks in a sitting was designed to address binge drinking on campus. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) Task Force on College Drinking (2007) defined binge drinking as five or more drinks in a 2- hour period for males and as four or more drinks in a 2- hour

period for females. The results revealed a statistically significant difference in means for Black and White survey participants. White participants reported drinking five or more drinks in a sitting one- or two- times within the two weeks prior to taking the survey, whereas Black survey participants reported zero- or one-time within the two weeks prior to taking the survey. These results are important for the purposes of practice because the difference in binge drinking may be connected to the heightened number of alcohol policy violations documented for White college students at the research site. It is more likely that students who have potentially engaged in binge drinking will be more careless in their actions and attract the attention of university personnel responsible for documenting policy violations.

Additionally, the ANOVA revealed a statistically significant difference in means for Black and White survey participants when exploring past 30 day alcohol consumption. For past 30 day use, White participants reported consuming alcohol between three to five days and six to nine days whereas Black participants reported between one to two days and 3 to five days.

These results were consistent with prior research that indicated differences in alcohol use exist based on ethnicity. Research has indicated that the largest gap in reported consumption existed between Whites and Blacks (Borsari et al., 2007; Broman, 2005; Marx & Sloan, 2003; Siebert et al., 2003). These findings support prior research that reported White students use alcohol at almost twice the rate of Black students. However, it should be noted that in all instances the effect size was small which indicates that further research should be conducted prior to allocating a great deal of resources toward educational efforts based on ethnicity.

Summary of Findings for Research Question Two

Are motivators for alcohol use different for Black and White college students?

The transition to college is a critical developmental time for individuals. Environmental and emotional stressors are heightened as individuals entering the collegiate environment attempt to adapt to their new surroundings. As explained by Bronfenbrenner (1979), the external and internal environments surrounding college students play a major role in their decision making. Students are expected to balance family life, the rigors of a college curriculum, and a new living environment. Additionally, college students begin to make decisions without constant guidance from parents or family members. Many of these environmental factors play a role in the student's development and decision making. The desired effects of alcohol are often identified as predictors of a student's alcohol use, and, when combined with environmental influences, the decision making process is impacted. As illustrated in the literature, alcohol is often used to enhance social assertiveness, ease social tension, and help the conversation flow more easily (Biscaro et al., 2004; Kuther & Timoshin, 2003).

The purpose of this research question was to evaluate whether motivational factors for alcohol use were different for Black and White college students. A difference of proportions and confidence intervals were calculated to determine whether a statistically significant difference in the anticipated effects of alcohol existed between White (non-Hispanic) and Black (non-Hispanic) survey participants. The survey question used to address research question two is included in Table 14.

Table 14

Survey Question for Research Question Two

Research Question	Survey Question
Are the motivators for alcohol use different for Black and White college students?	27. Do you believe that alcohol has the following effects?
	Enhances social activity
	Makes it easier to deal with stress
	Gives people something to do
	Facilitates sexual opportunities

The difference of proportions and confidence intervals computed indicated that statistically significant differences between White (non-Hispanic) and Black (non-Hispanic) survey participants were not found. These data reflect that Black and White college students typically choose to consume alcohol for similar reasons. These results are contrary to the literature, which suggested religiosity and stress relief are more influential variables for Black students and social factors are more influential for White students (Borsari et al., 2007; Humara & Sherman, 1999; Sicbert & Wilkc, 2007).

Summary of Finding for Research Question Three

Does any combination of factors predict alcohol use?

A key component of addressing alcohol use is an understanding of the predictors of alcohol consumption. The present research question was designed to examine the ways that a combination of factors might predict alcohol use. For the purposes of practice, gaining a better understanding of the predictors of alcohol use can help educators better focus their efforts for prevention. The survey questions used to address research question three are included in Table 15.

Table 15

Survey Question used to Address Research Question Three

Research Question	Survey Question
Does any combination of factors predict alcohol use?	14. Think back over the last two weeks. How many times have you had five or more drinks at a sitting? None, Once, Twice, Three to Five Times, Six to Nine Times, Ten or More Times

The full regression model used to explore the combination of variables that predict alcohol use included the independent variables approximate cumulative grade point average, ethnicity, gender, interaction between gender and ethnicity, level of participation in a social fraternity or sorority, level of participation in a religious group or organization, motivator to relieve stress, and motivator to facilitate sexual opportunities. The reduced regression models each revealed how a cluster of variables accounted for the variance in the dependent variable. As previously indicated, the level of participation in social activities was the strongest predictor of five or more drinks in a sitting. A high level of participation in social fraternities and sororities increased the likelihood that participants consumed five or more drinks in a sitting. However, the level of participation in religious organizations represented a decreased likelihood that participants consumed five or more drinks in a sitting.

These findings were consistent with prior research that suggested involvement in social fraternities and sororities were at risk for alcohol abuse (Barry, 2007; Dams-O'Connor et al., 2007). These results support Spratt and Turrentine's (2001) findings that leadership and frequency of alcohol use were positively correlated and that student leaders are at risk for alcohol abuse. As reported by Spratt and Turrentine, student leaders fit the profile of an extroverted, high-energy, social person who is at risk for alcohol

abuse. Likewise, students involved in social fraternities or sororities were determined as at risk for alcohol abuse due to the social pressure often involved in such organizations (Barry, 2007; Dams-O'Connor et al., 2007). Additionally, these results are consistent with the findings that reported students who identify themselves as religious or involved in a religious organization consume alcohol less frequently (Paschall & Flewelling, 2002; Paschall et al., 2005). Although research suggests that differences by ethnicity in alcohol use exist, race was not a strong predictor when combined with other factors in the multiple regression analyses.

These findings are important for the purposes of practice. These findings revealed information about the campus culture of alcohol use by ethnicity and could provide direction to administrators as they seek to address concerns regarding alcohol use. The recommendations for practice are more thoroughly discussed below.

Recommendations for Practice

The environmental management approach to addressing alcohol use on college campuses is becoming increasingly popular. This multifaceted methodology accounts for multiple influential factors that impact a college student's decision making process, particularly in relation to alcohol consumption. DeJong and Langford (2002) illustrated the ways that the environmental management approach to addressing alcohol use is supported by the foundation of ecological theory, which was used to frame this study. Ecological theory focuses on the influence of one's immediate and external environments and the roles they play in the decision making process (Bronfenbrenner, 1979).

This study revealed some significant findings that can impact practice and alcohol education, particularly at small private universities. Addressing the research questions,

the study provided a better understanding of the perceptions of alcohol use, actual alcohol use, motivators for alcohol use, and predictors of alcohol use. These findings would be beneficial to similar small private universities interested in gaining a better understanding of campus drinking cultures and difference by ethnicity.

The difference in the perception of alcohol use versus actual use was not statistically significant based on ethnicity. However, the gap between the perception of alcohol use and actual use by the general student population was alarming. As supported by the environmental approach to addressing alcohol use, these findings suggested that the culture of students who use alcohol on campus is more prevalent than the culture of students who refrain from alcohol use. This environmental condition promotes alcohol use and supports the strong need for a social norming campaign (Wechsler & Nelson, 2008). While the social norming campaign alone may not have a great impact on student alcohol use, it may help defeat the mentality that everyone drinks; therefore, students must drink to be part of the mainstream culture.

The desire to be part of the mainstream culture is often identified as a motivating factor for students who choose to drink. Additionally, the effects of alcohol are also motivating factors for students to drink. Based on the current study, motivational factors do not differ based by ethnicity at the research institution.

Literature exists to support the need for an environmental management initiative, based on the information that suggests that patterns of alcohol use typically exist prior to college and are built upon when students arrive on campus. This approach could also involve parents in the alcohol education program, and although parent history of substance use was not significant in the present study, parental influence is recognized as

a strong factor in the environmental management approach to address alcohol use (DeJong & Langford, 2002; Harford et al., 2003).

Overall, for the purposes of practice, the educational institution should target students with low cumulative grade point averages, members and leaders of social fraternities or sororities, and further explore differences in alcohol use by ethnicity. Members of social fraternities and sororities and students with low cumulative grade point averages can easily be identified, and programmatic efforts can be directed at these groups. Additionally, the student judicial system can be used to identify students with a history of alcohol use, and a program can be designed for repeat offenders of the alcohol policy. From the global perspective, the university could approach alcohol education differently for Black and White college students. It is apparent from the data that White college students binge drink more frequently and suffer more severe consequences than Black college students at the research site.

These findings are important for the purposes of educational and preventative practices at small private universities in the southeastern United States. Efforts should not focus on the motivational factors associated with alcohol use, but should consider targeting students by ethnic group to address binge drinking. Likewise, targeting student leaders could be a primary focus for educators. Student leaders have the potential to influence the culture and behavior of their organization and members or non-leaders may follow the example set by the leader to be part of the mainstream culture of the organization. College student alcohol use is a complex problem and by narrowing the focus for educators, the opportunity to make an impact increases.

Implications for Further Research

As with most studies, this research has raised additional questions – in this case, about alcohol use and college students. I want to extend my research to explore student alcohol use prior to attending college. Knowledge of alcohol use prior to attending college could be beneficial in the university's approach to addressing education and prevention. Additionally, the collection of qualitative data could be very useful in conjunction with a survey such as the one used in this research. This research can serve as a stepping stone further to investigate differences by ethnicity at different types of institutions.

Additional research needs to address successful alcohol prevention programs. The latest trends in prevention and educational efforts include on-line educational programs, parental notification of alcohol policy violations, minimum sanctioning that incorporates punitive fines and medical amnesty policies that encourage students to seek help for themselves and friends without fear of repercussions by the university. Institutions need to assess prevention efforts and share successes with other institutions.

A wide range of research opportunities exist for exploring college student alcohol use. College student alcohol use is a complex issue that is impacted by multiple factors. Particularly, the need to explore alcohol use when paired with other substances exists. This topic warrants additional research because of the great impact it has on individuals, peers, families, educational institutions, and surrounding communities. In addition to gaining a better picture of the alcohol problem, the effectiveness of alcohol education programs should be evaluated.

Limitations of the Study

This research experience brought to light the fact that it is becoming increasingly less likely that students identify with one particular ethnic group. Until the ethnicity question on surveys accurately reflects the changing demographic, data may not accurately reflect views, attitudes, or cultures.

The primary limitation of the study was the 16% return rate of the surveys. While the ethnic make-up of the survey respondents was closely representative of the research institution's student population, the sample size was small and ultimately limited the potential identification of differences by race. However, when compared to other institutions that participated in the 2008 Florida Core Study, the research site reflected the collection of a much more representative sample of the population. The 2008 Florida Core Study Regional Report indicated that participating institutions reported similar response rates to the 16% response rate of the research site. The northern region, which included the research site, reported an average response rate of 15%, the southern region reported a 17% response rate, and the central region reported a 17% response rate. The overall demographics of the participating institutions reflected 76% White (non-Hispanic), 6% Black (non-Hispanic), 10% Hispanic, and 8% all other groups. The northern region reported 74.8% White (non-Hispanic), 7.4% Black (non-Hispanic), 8.4% Hispanic, and 9.4% all others (Lancey, Nair, Straney, & Hall, 2008). Whereas, the demographic response rate of the research site's participants, reflected 0.7% American Indian/Alaskan Native, 16.1% Black (non-Hispanic), 5.2% Asian/Pacific Islander, 6.8% Hispanic, 65.1% White (non-Hispanic), and 5.2% Other, a much more representative sample of the population compared to participants at other participating institutions.

Additionally, the Core Institute deemed a representative sample of the population as more important than the number of respondents, which was accomplished in the present study. A representative sample was of paramount importance for the present study due to the focus on differences according to ethnicity. Placing more importance on a representative sample than the response rate was supported by Cook, Heath, and Thompson (2000) who referenced election polls as a clear example that the representativeness of samples was much more important than the response rate. "But it is not necessarily true that representativeness increases monotonically with increasing response rate. Remarkably, recent research has shown that surveys with very low response rates can be more accurate than surveys with much higher response rates" (Krosnick, 1999, p. 540).

Although these limitations exist, a large amount of valuable data was collected, and similar small private universities will be able to use this information for practical purposes. Most notably, the social culture of drinking was identified, and particular groups of students can be targeted with educational and prevention efforts.

Conclusion

The question that served as the inspiration for this research project was whether college administrators should address alcohol prevention and education differently for Black and White college students. This question arose when a notable difference was recognized between the heightened number of conduct hearings held for alcohol policy violations for White college students compared to Black college students. The initial examination of this concept was explored through the review of literature and by

conducting focus groups at the research site, which supported the need for further research.

The findings of this study provided some insight into the culture of alcohol use at the research site. The notable difference in judicial hearings was justified by the data that indicated a statistically significant difference in alcohol consumption between White and Black students, which indicated that White students consume alcohol more frequently. The lack of a statistically significant difference in the perception of alcohol use indicated that both White and Black students perceive alcohol use to be greater than reported.

There was no statistically significant difference in the motivational factors associated with alcohol use which is important for the purposes of practice. These findings indicate that motivational factors should not be the focus of educational and prevention efforts. Based on these results, White and Black students are motivated to drink for similar reasons. The primary concern is the amount of alcohol consumed and the frequency at which White students consume alcohol.

The multiple regression analysis revealed a great deal of valuable information for the purposes of practice. The strongest predictor of consuming five or more drinks in a sitting was the level of involvement in social fraternities or sororities. However, the level of involvement in a religious organization decreased the likelihood of consuming five or more drinks in a sitting. These results indicate the need to further investigate alcohol use by student leaders on campus, particularly in social fraternities and sororities.

The opportunity to participate in the Core Alcohol and Drug Survey with other institutions in northeast Florida was presented, and this study was launched. Once the data were collected and the analysis began, the data confirmed the need to address the

issue of alcohol differently based on ethnic groups. Specifically, the issue of binge drinking among White college students should be more thoroughly explored. Ultimately, this study revealed a great deal of valuable information about the culture of alcohol use at the research site and can provide administrators with data to support educational and prevention efforts that target different populations.

Appendix A

Core Alcohol and Drug Survey Long Form

<h1 style="margin: 0;">Core Alcohol and Drug Survey</h1> <p style="margin: 0;">For use by two- and four-year institutions</p>			Form 191																																																																																																																																													
<p style="font-size: x-small;">Please use a number 2 Pencil.</p>	<p style="font-size: x-small;">Core Institute Student Health Programs Southern Illinois University Carbondale, IL 62901</p>	<p style="font-size: x-small;">For additional use:</p> <p style="font-size: x-small;">A (0) (1) (2) (3) (4) (5) (6) (7) (8) (9)</p> <p style="font-size: x-small;">B (0) (1) (2) (3) (4) (5) (6) (7) (8) (9)</p> <p style="font-size: x-small;">C (0) (1) (2) (3) (4) (5) (6) (7) (8) (9)</p> <p style="font-size: x-small;">D (0) (1) (2) (3) (4) (5) (6) (7) (8) (9)</p> <p style="font-size: x-small;">E (0) (1) (2) (3) (4) (5) (6) (7) (8) (9)</p>																																																																																																																																														
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<p>5. Gender:</p> <p>Male <input type="radio"/></p> <p>Female <input type="radio"/></p>	<p>6. Is your current residence as a student:</p> <p>On-campus <input type="radio"/></p> <p>Off-campus <input type="radio"/></p>	<p>7. Are you working?</p> <p>Yes, full-time <input type="radio"/></p> <p>Yes, part-time <input type="radio"/></p> <p>No <input type="radio"/></p>																																																																																																																																														
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<p>10. Some students have indicated that alcohol or drug use at parties they attend in and around campus reduces their enjoyment, often leads to negative situations, and therefore, they would rather not have alcohol and drugs available and used. Other students have indicated that alcohol and drug use at parties increases their enjoyment, often leads to positive situations, and therefore, they would rather have alcohol and drugs available and used. Which of these is closest to your own view?</p> <p style="text-align: center;">Have available Not have available</p> <p>With regard to drugs? <input type="radio"/> <input type="radio"/></p> <p>With regard to alcohol? <input type="radio"/> <input type="radio"/></p>																																																																																																																																																
<p>11. Student status:</p> <p>Full-time (12+ credits) <input type="radio"/></p> <p>Part-time (1-11 credits) .. <input type="radio"/></p>	<p>12. Campus situation on alcohol and drugs:</p> <p>a. Does your campus have alcohol and drug policies? <input type="radio"/> yes <input type="radio"/> no <input type="radio"/> don't know</p> <p>b. If so, are they enforced? <input type="radio"/></p> <p>c. Does your campus have a drug and alcohol prevention program? <input type="radio"/></p> <p>d. Do you believe your campus is concerned about the prevention of drug and alcohol use? <input type="radio"/></p> <p>e. Are you actively involved in efforts to prevent drug and alcohol use problems on your campus? <input type="radio"/></p>																																																																																																																																															
<p>13. Place of permanent residence:</p> <p>In-state <input type="radio"/></p> <p>USA, but out of state <input type="radio"/></p> <p>Country other than USA .. <input type="radio"/></p>	<p>14. Think back over the last two weeks. How many times have you had five or more drinks* at a sitting?</p> <p>None <input type="radio"/></p> <p>Once <input type="radio"/></p> <p>Twice <input type="radio"/></p> <p>3 to 5 times <input type="radio"/></p> <p>6 to 9 times <input type="radio"/></p> <p>10 or more times <input type="radio"/></p> <p style="font-size: x-small;">*A drink is a bottle of beer, a glass of wine, a wine cooler, a shot glass of liquor, or a mixed drink.</p>																																																																																																																																															
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e. Amphetamines (diet pills, speed) ..	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																																																																																																																																								
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j. Designer drugs (ecstasy, MDMA) ..	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																																																																																																																																								
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l. Other illegal drugs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																																																																																																																																								

<p>17. Within the last year..... about how often have you used ... (mark one for each line)</p> <p> <input type="radio"/> Did not use <input type="radio"/> Once/year <input type="radio"/> 3 times/year <input type="radio"/> Once/month <input type="radio"/> Twice/month <input type="radio"/> Once/week <input type="radio"/> 3 times/week <input type="radio"/> 5 times/week <input type="radio"/> Every day </p> <p>a. Tobacco (smoke, chew, snuff) .. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>b. Alcohol (beer, wine, liquor) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>c. 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Sedatives (downers, ludes) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>g. Hallucinogens (LSD, PCP) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>h. Opiates (heroin, smack, horse) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>i. 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Other illegal drugs <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p>	<p>18. During the past 30 days..... on how many days did you have: (mark one for each line)</p> <p> <input type="radio"/> 0 days <input type="radio"/> 1-2 days <input type="radio"/> 3-5 days <input type="radio"/> 6-9 days <input type="radio"/> 10-19 days <input type="radio"/> 20-29 days <input type="radio"/> All 30 days </p> <p>a. Tobacco (smoke, chew, snuff) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>b. 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Amphetamines (diet pills, speed) .. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>f. Sedatives (downers, ludes) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>g. Hallucinogens (LSD, PCP) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>h. 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Steroids <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>l. Other illegal drugs <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p>
<p>19. How often do you think the average student on your campus uses ... (mark one for each line)</p> <p> <input type="radio"/> Never <input type="radio"/> Once/year <input type="radio"/> 3 times/year <input type="radio"/> Once/month <input type="radio"/> Twice/month <input type="radio"/> Once/week <input type="radio"/> 3 times/week <input type="radio"/> 5 times/week <input type="radio"/> Every day </p> <p>a. Tobacco (smoke, chew, snuff) .. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>b. Alcohol (beer, wine, liquor) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>c. Marijuana (pot, hash, hash oil) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>d. Cocaine (crack, rock, freebase) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>e. Amphetamines (diet pills, speed) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>f. Sedatives (downers, ludes) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>g. Hallucinogens (LSD, PCP) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>h. Opiates (heroin, smack, horse) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>i. Inhalants (glue, solvents, gas) .. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>j. Designer drugs (ecstasy, MDMA) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>k. Steroids <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>l. Other illegal drugs <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p>	<p>21. Please indicate how often you have experienced the following due to your drinking or drug use during the last year ... (mark one for each line)</p> <p> <input type="radio"/> Never <input type="radio"/> Once <input type="radio"/> Twice <input type="radio"/> 3-5 times <input type="radio"/> 6-10 times <input type="radio"/> 10 or more times </p> <p>a. Had a hangover <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>b. Performed poorly on a test or important project <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>c. Been in trouble with police, residence hall, or other college authorities <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>d. Damaged property, pulled fire alarm, etc. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>e. Got into an argument or fight <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>f. Got nauseated or vomited <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>g. Driven a car while under the influence <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>h. Missed a class <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>i. Been criticized by someone I know <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>j. Thought I might have a drinking or other drug problem <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>k. Had a memory loss <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>l. Done something I later regretted <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>m. Been arrested for DWI/DUI <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>n. Have been taken advantage of sexually <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>o. Have taken advantage of another sexually <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>p. Tried unsuccessfully to stop using .. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>q. Seriously thought about suicide <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>r. Seriously tried to commit suicide <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>s. Been hurt or injured <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p>
<p>20. Where have you used ... (mark all that apply)</p> <p> <input type="checkbox"/> On campus events <input type="checkbox"/> Residence hall <input type="checkbox"/> Fraternity/sorority <input type="checkbox"/> Bars/clubhouse <input type="checkbox"/> Where you live <input type="checkbox"/> In a car <input type="checkbox"/> Private parties <input type="checkbox"/> Other </p> <p> <input type="checkbox"/> Never used </p> <p>a. Tobacco (smoke, chew, snuff) .. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>b. Alcohol (beer, wine, liquor) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>c. Marijuana (pot, hash, hash oil) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>d. Cocaine (crack, rock, freebase) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>e. Amphetamines (diet pills, speed) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>f. Sedatives (downers, ludes) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>g. Hallucinogens (LSD, PCP) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>h. Opiates (heroin, smack, horse) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>i. Inhalants (glue, solvents, gas) .. <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>j. Designer drugs (ecstasy, MDMA) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>k. Steroids <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>l. Other illegal drugs <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p>	<p>22. Have any of your family had alcohol or other drug problems: (mark all that apply)</p> <p> <input type="checkbox"/> Mother <input type="checkbox"/> Brothers/sisters <input type="checkbox"/> Spouse <input type="checkbox"/> Father <input type="checkbox"/> Mother's parents <input type="checkbox"/> Children <input type="checkbox"/> Stepmother <input type="checkbox"/> Father's parents <input type="checkbox"/> None <input type="checkbox"/> Stepfather <input type="checkbox"/> Aunts/Uncles </p>
<p>22. Have any of your family had alcohol or other drug problems: (mark all that apply)</p> <p> <input type="checkbox"/> Mother <input type="checkbox"/> Brothers/sisters <input type="checkbox"/> Spouse <input type="checkbox"/> Father <input type="checkbox"/> Mother's parents <input type="checkbox"/> Children <input type="checkbox"/> Stepmother <input type="checkbox"/> Father's parents <input type="checkbox"/> None <input type="checkbox"/> Stepfather <input type="checkbox"/> Aunts/Uncles </p>	<p>23. If you volunteer any of your time on or off campus to help others, please indicate the approximate number of hours per month..... and principal activity:</p> <p> <input type="radio"/> Don't volunteer, or less than 1 hour <input type="radio"/> 10-15 hours <input type="radio"/> 1-4 hours <input type="radio"/> 16 or more hours </p> <p>Principal volunteer activity is:</p>

<p>24. Within the last year to what extent have you participated in any of the following activities? (mark one for each line)</p> <table border="0"> <tr> <td>a. Intercollegiate athletics</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>b. Intramural or club sports</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>c. Social fraternities or sororities</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>d. Religious and interfaith groups</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>e. International and language groups</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>f. Minority and ethnic organizations</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>g. Political and social action groups</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>h. Music and other performing arts groups</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>i. Student newspaper, radio, TV, magazine, etc.</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> </table>	a. Intercollegiate athletics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	b. Intramural or club sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	c. Social fraternities or sororities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	d. Religious and interfaith groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	e. International and language groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	f. Minority and ethnic organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	g. Political and social action groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	h. Music and other performing arts groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	i. Student newspaper, radio, TV, magazine, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p>27. Do you believe that alcohol has the following effects? (mark one for each line)</p> <table border="0"> <tr> <td></td> <td></td> <td>yes</td> <td>no</td> </tr> <tr> <td>a. Breaks the ice</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>b. Enhances social activity</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>c. Makes it easier to deal with stress</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>d. Facilitates a connection with peers</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>e. Gives people something to talk about</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>f. Facilitates male bonding</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>g. Facilitates female bonding</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>h. 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a. Intercollegiate athletics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																																																																																																														
b. Intramural or club sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																																																																																																														
c. Social fraternities or sororities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																																																																																																														
d. Religious and interfaith groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																																																																																																														
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<p>25. In the first column, indicate whether any of the following have happened to you within the last year while you were in and around campus. If you answered yes to any of these items, indicate in the second column if you had consumed alcohol or other drugs shortly before these incidents.</p> <table border="0"> <tr> <td></td> <td colspan="2">Happened to you</td> <td colspan="2">Consumed alcohol or drugs</td> </tr> <tr> <td></td> <td>yes</td> <td>no</td> <td>yes</td> <td>no</td> </tr> <tr> <td>a. Ethnic or racial harassment</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>b. Threats of physical violence</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>c. Actual physical violence</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>d. Theft involving force or threat of force</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>e. Forced sexual touching or fondling</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>f. Unwanted sexual intercourse</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> </table>		Happened to you		Consumed alcohol or drugs			yes	no	yes	no	a. Ethnic or racial harassment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	b. Threats of physical violence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	c. Actual physical violence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	d. Theft involving force or threat of force	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	e. Forced sexual touching or fondling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	f. Unwanted sexual intercourse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p>28. On this campus, drinking is a central part in the social life of the following groups: (mark one for each line)</p> <table border="0"> <tr> <td></td> <td>yes</td> <td>no</td> </tr> <tr> <td>a. Male students</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>b. Female students</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>c. Faculty/staff</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>d. Alumni</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>e. Athletes</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>f. Fraternities</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>g. Sororities</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> </table>		yes	no	a. Male students	<input type="radio"/>	<input type="radio"/>	b. Female students	<input type="radio"/>	<input type="radio"/>	c. Faculty/staff	<input type="radio"/>	<input type="radio"/>	d. Alumni	<input type="radio"/>	<input type="radio"/>	e. Athletes	<input type="radio"/>	<input type="radio"/>	f. Fraternities	<input type="radio"/>	<input type="radio"/>	g. Sororities	<input type="radio"/>	<input type="radio"/>																																																		
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Does the social atmosphere on this campus promote alcohol use?</td> <td>yes</td> <td>no</td> </tr> <tr> <td>b. Does the social atmosphere promote other drug use?</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>c. Do you feel safe on this campus?</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> </table> <p>30. Compared to other campuses with which you are familiar, this campus' use of alcohol is... (mark one)</p> <table border="0"> <tr> <td>Greater than other campuses</td> <td><input type="radio"/></td> </tr> <tr> <td>Less than other campuses</td> <td><input type="radio"/></td> </tr> <tr> <td>About the same as other campuses</td> <td><input type="radio"/></td> </tr> </table> <p>31. Housing preferences: (mark one for each line)</p> <table border="0"> <tr> <td>a. If you live in university housing, do you live in a designated alcohol-free/drug-free residence hall?</td> <td>yes</td> <td>no</td> </tr> <tr> <td>b. 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32. To what extent do students on this campus care about problems associated with... (mark one for each line)

	Not at all	Slightly	Some what	Very much
a. Alcohol and other drug use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Campus vandalism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Sexual assault	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Assaults that are non-sexual	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Harassment because of gender	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Harassment because of sexual orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Harassment because of race or ethnicity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Harassment because of religion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

33. To what extent has your alcohol use changed within the last 12 months?

Increased

About the same

Decreased

I have not used alcohol

34. To what extent has your illegal drug use changed within the last 12 months?

Increased

About the same

Decreased

I have not used drugs

35. How much do you think people risk harming themselves (physically or in other ways) if they... (mark one for each line)

	No risk	Slight risk	Moderate risk	Great risk	Can't say
a. Try marijuana once or twice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Smoke marijuana occasionally	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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j. Take one or two drinks of an alcoholic beverage (beer, wine, liquor) nearly every day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Take four or five drinks nearly every day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Have five or more drinks in one sitting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Take steroids for body building or improved athletic performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Consume alcohol prior to being sexually active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Regularly engage in unprotected sexual activity with a single partner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Regularly engage in unprotected sexual activity with multiple partners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

36. Mark one answer for each line:

	yes	no
a. Did you have sexual intercourse within the last year?	<input type="radio"/>	<input type="radio"/>
If yes, answer b and c below.		
b. Did you drink alcohol the last time you had sexual intercourse?	<input type="radio"/>	<input type="radio"/>
c. Did you use other drugs the last time you had sexual intercourse?	<input type="radio"/>	<input type="radio"/>

37. During the past 30 days, to what extent have you engaged in any of the following behaviors? (mark one for each line)

	Zero times	One time	Two times	3-5 times	6-9 times	10 or more times
a. Refused an offer of alcohol or other drugs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Bragged about your alcohol or other drug use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Heard someone else brag about his/her alcohol or other drug use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Carried a weapon such as a gun, knife, etc. (do not count hunting situations or weapons used as part of your job)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Experienced peer pressure to drink or use drugs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Held a drink to have people stop bothering you about why you weren't drinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Thought a sexual partner was not attractive because he/she was drunk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Told a sexual partner that he/she was not attractive because he/she was drunk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

38. To what extent do you agree with the following statements? (mark one for each line)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Don't know
a. I feel valued as a person on this campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I feel that faculty and staff care about me as a student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I have a responsibility to contribute to the well-being of other students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. My campus encourages me to help others in need	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. I abide by the university policy and regulations that concern alcohol and other drug use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

39. In which of the following ways does other students' drinking interfere with your life on or around campus? (mark one for each line)

	yes	no
a. Interrupts your studying	<input type="radio"/>	<input type="radio"/>
b. Makes you feel unsafe	<input type="radio"/>	<input type="radio"/>
c. Messes up your physical living space (cleanliness, neatness, organization, etc.)	<input type="radio"/>	<input type="radio"/>
d. Adversely affects your involvement on an athletic team or in other organized groups	<input type="radio"/>	<input type="radio"/>
e. Prevents you from enjoying events (concerts, sports, social activities, etc.)	<input type="radio"/>	<input type="radio"/>
f. Interferes in other ways	<input type="radio"/>	<input type="radio"/>
g. Doesn't interfere with my life	<input type="radio"/>	<input type="radio"/>

Appendix B

Florida Core Study Participation Verification



Strategic Planning and Initiatives

TO: IRB Committee Chair, Jacksonville University
FROM: Dr. Patrice Lancey, Director Operational Excellence and
Assessment Support
RE: 2008 Florida Core Study

A gap exists in the systematic collection of data used to estimate the use of alcohol and other drugs by college students in the state of Florida. Recognizing the need for a higher order analysis of statewide and regional data on alcohol and other drug behavior in this understudied population of young adults, The Florida Higher Education Alliance for Substance Abuse Prevention, with funding from The Florida Department of Children and Families, has contracted with the University of Central Florida to conduct the 2008 Florida Core study. Participating institutions, located in the north, central and southern regions, will administer The Core Alcohol and Other Drug Survey to a random sample of their students. All institutional identifiers will be striped from participating institution data sets by the CORE Institute staff to create an aggregate state data file for analysis by UCF investigators Patrice Lancey and Tom Hall. The grant covers the cost of administration of 300 randomly selected full-time baccalaureate Jacksonville University students between the ages of 18-30 enrolled at the main campus and a \$350 stipend.

The study will estimate young adults' self-reported rate and frequency use of alcohol and other drugs and will also estimate the frequency of harms (e.g., missed class, arguments or fights, driving under the influence) related to substance use. The results will provide critical baseline data that can be used to establish the primary and secondary

alcohol and other drug prevention needs of the young adult population in Florida.

Appendix C

Institutional Review Board (IRB)

APPROVAL MEMORANDUM

from the Jacksonville University Institutional Review Board

Project Number: 2008-21

Date: August 19, 2008

From: Michael Nancarrow, Chair

To: Kristie Gover

Dept: Student Life

Project Title: Rates of alcohol use and their related consequences among traditional undergraduates at Jacksonville University

The forms you have submitted to this board in regards to the use of human subjects in the proposal referenced above have been reviewed and your project has been approved.

The IRB has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals which may be required.

This approval applies to your project in the form and content as submitted to the IRB for review. Any modifications to the approved protocol and/or informed consent as they relate to dealings with human subjects must be cleared with the IRB prior to implementation.

The principle investigator must report to the Chair, promptly and in writing, any unanticipated problems involving risks to subjects or others.

If the project has not been completed by August 19, 2009, you must request renewed approval for continuation of the project.

Appendix D

Institutional Review Board (IRB)



UNIVERSITY of
NORTH FLORIDA.

Office of Research and Sponsored Programs
1 UNF Drive
Building 3, Office 2501
Jacksonville, FL 32224-2665
904-620-2455 FAX 904-620-2457
Equal Opportunity/Equal Access/Affirmative Action Institution

MEMORANDUM

DATE: October 1, 2008

TO: Kristie Gover

VIA: Dr. Marcia Lamkin
Educational Leadership

FROM: Dominique Scalia, Research Integrity Coordinator
On Behalf of the UNF Institutional Review Board

RE: Review by the UNF Institutional Review Board IRB#08-131:
"Rates of Alcohol Use and Their Related Consequences Among
Traditional Undergraduates at Jacksonville University"

This is to advise you that your study, "Rates of Alcohol Use and Their Related Consequences Among Traditional Undergraduates at Jacksonville University," has been reviewed on behalf of the UNF Institutional Review Board and has been declared exempt from further IRB oversight.

This approval applies to your project in the form and content as submitted to the IRB for review. Any variations or modifications to the approved protocol and/or informed consent forms as they relate to dealing with human subjects must be cleared with the IRB prior to implementing such changes.

Should you have any questions regarding your approval or any other IRB issues, please contact Nicole Sayers, Asst. Director of Research Integrity, at nsayers@unf.edu.

Thank you.

Appendix E

Core Survey Consent

Dear Jacksonville University Student,

You are among several students who have been selected to participate in an **anonymous** online alcohol survey. Your participation and honest answers are crucial for assessing alcohol issues at Jacksonville University and in the state of Florida.

- The following questions ask about your perceptions and use of alcohol and other drugs.
- This survey is completely voluntary. You may choose not to participate or not to answer any specific questions. You may skip any question you are not comfortable answering. **You can decline to participate in this survey without affecting your grade or class standing.** There are no anticipated risks.
- **Do not take this survey if you are under the age of 18.**
- The survey is anonymous and many of the questions are personal in nature. You can be assured that your responses will never be matched with your name, since IP addresses will be removed from the survey when it is submitted.
- This study examines student alcohol use, beliefs, and attitudes. The information will be used to evaluate the effectiveness of current prevention activities and to improve prevention programs for students.
- Composite data will be assessed to determine the most effective way for Jacksonville University and the state of Florida to utilize resources for prevention and treatment.
- The results of this study may be published. However, the data obtained from you will be combined with data from others in the publication. The published results will not include your name or any other information that would personally identify you in any way.
- If you choose to participate, the first twenty (20) participants will receive two (2) movie tickets to their movie of choice at the Tinseltown Cinemark Theater. You may redeem your movie tickets by printing the verification of survey completion page at the end of the survey. Please write your name on the verification of survey completion page and turn it in the Student Life office located on the third floor of the Davis Students Commons. It will not be possible for the University to connect your survey results to the verification of survey completion page.

If you have any questions about this survey or on alcohol and or other drugs, please contact Kristie Gover at kgover1@ju.edu or 904-256-7069. Questions or concerns about research participants' rights may be directed at Dr. Michael Nancarrow, Associate Professor of Mathematics and Chair of the Institutional Review Board Committee. Dr. Nancarrow can be contacted at mnancar@ju.edu or 904-256-7315.

Thank you for taking the time and thought to complete this survey. We sincerely appreciate your participation. Your time and effort in helping us gather information is

greatly appreciated and will ultimately help professionals in higher education serve students by meeting programming and funding needs.

By clicking the “I Agree” button below, you are consenting to participate in this study.

Appendix F**Exploratory Study Institutional Review Board (IRB)**

APPROVAL MEMORANDUM
from the Jacksonville University Institutional Review Board

Project Number: 2007-55

Date: December 14, 2007

From: Michael Nancarrow, Chair

To: Kristie Gover

Dept: Student Life

Project Title: Focus group exploration of the differences in alcohol use between Black and White college students

The forms you have submitted to this board in regards to the use of human subjects in the proposal referenced above have been reviewed and your project has been approved.

The IRB has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals which may be required.

This approval applies to your project in the form and content as submitted to the IRB for review. Any modifications to the approved protocol and/or informed consent as they relate to dealings with human subjects must be cleared with the IRB prior to implementation.

The principle investigator must report to the Chair, promptly and in writing, any unanticipated problems involving risks to subjects or others.

Your faculty supervisor is reminded that she/he is responsible for reviewing the conduct of your investigation as often as needed to insure compliance with the approved protocol.

If the project has not been completed by December 14, 2008, you must request renewed approval for continuation of the project.

Appendix G**Exploratory Study Institutional Review Board (IRB)**

Office of Research and Sponsored Programs
1 UNF Drive
Jacksonville, FL 32224-2665
904-620-2455 FAX 904-620-2457
Equal Opportunity/Equal Access/Affirmative Action Institution

MEMORANDUM

DATE: January 23, 2008

TO: Kristie Gover

VIA: Dr. Sharon Wilburn
Public Health

FROM: Dr. David Kline, Chair
UNF Institutional Review Board

RE: Review by the UNF Institutional Review Board IRB#07-174;
"Focus Group exploration of the differences in alcohol use between
African American and Caucasian college students"

This is to advise you that your project, "Focus Group exploration of the differences in alcohol use between African American and Caucasian college students," has been reviewed on behalf of the UNF Institutional Review Board and has been approved (Expedited/Category #7).

This approval applies to your project in the form and content as submitted to the IRB for review. Any variations or modifications to the approved protocol and/or informed consent forms as they relate to dealing with human subjects must be approved with the IRB prior to implementing such changes. Any unanticipated problems involving risk and any occurrence of serious harm to subjects and others shall be reported promptly to the IRB.

Your approval is valid for **one year**. If your project continues for more than one year, you are required to provide a continuing status report to the UNF IRB prior to January 23, 2009.

Should you have any questions regarding your project or any other IRB issues, please contact Dominique Scalia, Research Integrity Coordinator, at 620-2443.

Thank you.

Appendix H

Exploratory Study Focus Group Script

Facilitator: Kristie
Gover
Recorder: Amy
Baughman
Date:
Site: Jacksonville
University
Number of
participants: 4-6

Introductory Script (5 minutes)

I. *Welcome. Thank you for participating.*

II. *Purpose of the focus group today*

I am a doctoral student at the University of North Florida. I am considering the topic of alcohol use on college campuses as the focus of my dissertation.

You have been asked to join this group because we want to get your thoughts about alcohol use among college students, specifically the differences in alcohol use between Black and White students. We are here to gather information to help determine the need for future research in this area.

III. *Role of the focus group participant*

Focus groups, like this one, are a way to find out what people think through group discussion. We are very interested in learning about your ideas, feelings, and opinions. Your presence and opinion are very important to us, so please express yourself openly. There is no right or wrong answer. We want to know what you think. We are interested in all of your ideas and comments, both positive and negative.

Therefore, it is important that you feel comfortable expressing your views and experiences – what you really think and believe. Again, there are is right or wrong answer. Your experiences may be like someone else's or not like them at all, but everyone's opinion is important and we ask that you respect the views of others in the discussion.

Ground rules for participation in this focus group include no interrupting or put downs. Everyone will have a chance to talk and we each want to be respectful.

Today's session should last about forty-five minutes. If I cut you off, I apologize, no disrespect is intended but we have a limited amount of time to answer a lot of questions and it is important that we stay on track.

IV. *Issues of Confidentiality*

We will use an audio-recorder to ensure accuracy in writing a summary of this discussion. No one will listen to the recording except the researchers, as we review our notes and write our summary. Once the summary is finished, we will destroy the audio-recording.

Everything that is said today is completely confidential. Please try to refrain from using names and referring to your own alcohol use. If you should mention a person or place by name, it will be omitted from our written summary. Please understand that anything you say today will not be linked to you in any way. You will remain anonymous when we report the results from this focus group. We ask everyone in this room to respect others and not repeat what is said here today. We also ask that each of you read and sign the informed consent that has been distributed. *Your participation in this focus group is entirely voluntary. Participants must be 18 years of age or older. By signing this form and participating in this focus group discussion you are giving your consent to be involved in the research. If at any point you decide that you do not want to continue your participation, please inform the focus group facilitator. Your refusal to participate will not result in any penalty or loss of benefits.*

V. *Introductions (5 minutes)*

We would like to go around the room and introduce ourselves with our first names only. I'll start first, I am Kristie Gover. My role is to facilitate the discussion. I am joined today by Amy Baughman. She will be taking notes while we talk. We want to make sure we don't miss anything you say.

VI. *Focus Group Questions*

Questions	Probes	Participant Feedback
<i>Section 1: Perceptions about alcohol use. (30 minutes)</i>		
How would you describe alcohol use among college students?	Do students drink to get drunk? Drink often? Drink primarily on weekends, weekdays, or both?	
Do social activities differ between Black and White college students?	What types of social activities do students attend or plan? Do you primarily see Black or White students drinking at parties on campus? Who typically hosts parties that involve alcohol?	
Why do college students drink?	What motivates students to	

	<p>drink?</p> <p>A celebration?</p> <p>Stress?</p> <p>Ease comfort in a social situation?</p>	
Are motivators for drinking different for Black and White students?		
How do drinking patterns differ for White and Black students?	<p>Do both groups drink to get drunk?</p> <p>Do they drink different types of alcohol?</p> <p>Is one group more likely to drink underage than the other?</p>	
Where does drinking usually take place?	<p>Do locations differ for Black or White students?</p> <p>Who drinks at clubs or bars?</p> <p>Who drinks on campus?</p>	
What are some negative consequences you have observed from alcohol use?	<p>Violence/fights?</p> <p>Vandalism?</p> <p>Missed classes?</p>	
What factors play a role in why Black and White students choose to drink or not to drink? How do those factors differ between the two groups?	<p>Parents?</p> <p>Religion?</p> <p>Academics?</p>	
What are some of the risk reduction efforts you have observed students take in relation to alcohol use? Do risk reduction efforts differ according to race?	<p>Designated drivers?</p> <p>Alternating non-alcoholic and alcoholic beverages?</p> <p>Deciding in advance how much they plan to drink?</p>	
What can the university do to discourage students from abusing alcohol?	<p>Alcohol Education?</p> <p>Punitive measures such as fines?</p> <p>Alcohol free programming?</p>	

VIII. Closing (5 minutes)

Thank you for participating in the focus group today. We wanted you to help us learn more about alcohol use and help provide direction for future research. Is there anything that we missed? Is there anything that you came wanting to say that you did not get a chance to say? Thank you again for your time.

Appendix I

Exploratory Study Focus Group Informed Consent

Informed Consent University of North Florida Brooks College of Health

Focus Group to Explore Differences in Alcohol Use between Black and White College Students

Your participation in this focus group is entirely voluntary. Participants must be 18 years of age or older. By signing this form and participating in this focus group discussion you are giving your consent to be involved in the research. If at any point you decide that you do not want to continue your participation, please inform the focus group facilitator. Your decision to stop your participation will not result in any penalty or loss of benefits.

You are being asked to participate in this focus group to help researchers better understand the differences in alcohol use between Black and White college students. The focus group will include between 4 and 6 people. The discussion will involve your perception of alcohol use on campus and will not include a discussion of anyone's personal use of alcohol. Please be as honest as possible and answer all questions to the best of your knowledge. The focus group discussion will be audio-recorded and should take no longer than 45 minutes. After the audio-recordings have been transcribed, the audio-recordings will be destroyed. You have the right to withdraw yourself from the focus group discussion at any time for any reason with no consequence imposed to you.

The results of each individual's participation and contribution to the discussion will be strictly confidential. With the exception of (a) researchers involved in facilitating this focus group, (b) the note taker, (c) the transcriber, and (d) the other members of the focus group, no one will be allowed to see or discuss any of the individual responses.

There are no foreseeable physical, psychological, social, legal, or other risks anticipated. The potential benefit of the study is to provide a background for further research needed in the area of minority college student alcohol use patterns and the differences in alcohol use between Black and White college students.

Please feel free to ask any questions you may have of the facilitator, especially if there is a word or phrase you do not understand. Feel free to fully express or explain an answer.

Once the study is completed, the results will be stored in a locked file at the researcher's private home.

Thank you for your cooperation and time. If you should have concerns about this focus group or your participation in this study, please call or email:

Kristie Gover

E-mail: kgover1@ju.edu

Phone: 904-256-7069

Or

Dr. Sharon T. Wilburn

E-mail swilburn@unf.edu

Phone: 904-620-1434

You may get further information about UNF policies, the conduct of this study, the rights of research subjects or if you suffer injury related to your participation in this research project from the Chair of the Institutional Review Board, Dr. David Kline at 904-620-2498.

Your Signature

Today's Date

Principal Investigator's Signature

Today's Date

Appendix J

Table of Means Excluding Demographic Variables

Variable	<i>M</i>	<i>SD</i>
Five or more drinks in two weeks	2.18	1.41
Grade Point Average	9.51	1.88
Fraternity or Sorority	2.07	1.22
Religious Organization	1.53	.81
Easy to deal with stress	.41	.49
Facilitates sexual opportunities	.55	.50

Note: N = 241

Appendix K

Multiple Regression Results Excluding Demographic Variables

Variable	<i>B</i>	<i>SEB</i>	β	<i>p</i>
Constant	2.261	.470		
Grade Point Average	-.100	.042	-.132	.017*
Fraternity or Sorority	.419	.064	.361	.000**
Religious Organization	-.281	.096	-.160	.004*
Easy to Deal with Stress	.428	.167	.149	.011*
Facilitates Sexual Opportunities	.461	.164	.162	.005*

Note. N= 241; $R^2 = .317$; $F(5,235) = 21.795$, $p \leq .001$; * $p < .05$; ** $p \leq .001$

Appendix L

Table of Means Excluding Academic Variables

Variable	<i>M</i>	<i>SD</i>
Five or more drinks in two weeks	2.17	1.41
Gender*Ethnicity	6.75	2.10
Fraternity or Sorority	2.07	1.22
Religious Organization	1.53	.80
Easy to deal with stress	.41	.49
Facilitates sexual opportunities	.55	.50

Note. N = 243

Appendix M

Multiple Regression Results Excluding Academic Variables

Variable	<i>B</i>	<i>SEB</i>	β	<i>p</i>
Constant	-1.975	2.664		.459
Fraternity or Sorority	.417	.066	.360	.000**
Religious Organization	-.302	.096	-.172	.002*
Easy to Deal with Stress	.516	.165	.180	.002*
Facilitates Sexual Opportunities	.477	.164	.168	.004*
Gender*Ethnicity	-.699	.387	-1.038	.072

Note. $N = 243$; $R^2 = .317$; $F(7,235) = 16.43$, $p \leq .001$; * $p < .05$; ** $p \leq .001$

Appendix N**Table of Means Excluding Social Variables**

Variable	<i>M</i>	<i>SD</i>
Five or more drinks in two weeks	2.18	1.42
Gender*Ethnicity	6.72	.49
Easy to deal with stress	.40	.49
Facilitates sexual opportunities	.55	.50
Grades	9.54	1.89

Note. N = 244

Appendix O

Multiple Regression Results Excluding Social Variables

Variable	<i>B</i>	<i>SEB</i>	β	<i>p</i>
Constant	.658	2.995		.826
Easy to Deal with Stress	.546	.183	.190	.003*
Facilitates Sexual Opportunities	.592	.179	.209	.001**
Gender*Ethnicity	-.859	.420	-1.270	.042*
Grades	-.136	.047	-.182	.004*

Note. $N = 244$; $R^2 = .199$; $F(6,237) = 9.833$, $p \leq .001$; * $p < .05$; ** $p \leq .001$

Appendix P**Table of Means Excluding Motivator Variables**

Variable	<i>M</i>	<i>SD</i>
Five or more drinks in two weeks	2.18	1.42
Gender*Ethnicity	6.73	2.09
Fraternity or Sorority	2.07	1.22
Religious Organization	1.53	.81
Grades	9.51	1.88

Note. N = 241

Appendix Q

Multiple Regression Results Excluding Motivator Variables

Variable	<i>B</i>	<i>SEB</i>	β	<i>p</i>
Constant	2.059	2.841		.469
Fraternity or Sorority	.458	.068	.395	.000**
Religious Organization	-.292	.100	-.166	.004*
Gender*Ethnicity	-.416	.401	-.615	.300
Grades	-.132	.045	-.174	.004*

Note. $N = 241$; $R^2 = .263$; $F(6,234) = 15.26$, $p \leq .001$; * $p < .05$; ** $p \leq .001$

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Kristie S. Gover

EDUCATION

Doctor of Education, University of North Florida **August 2010**
 Cognate: Higher Education and Leadership Administration

Master of Arts, University of Louisville, Louisville, KY **May 2001**
 Concentration: Higher Education Administration

Bachelor of Arts, University of Louisville, Louisville, KY **May 1999**
 Major: Psychology

Professional Experience

Jacksonville University

Assistant Dean of Students, May 2005-Present

Serve as Assistant Dean of Students, reporting directly to the Dean of Students, for a private, residential, Liberal Arts University of 3,000 students. Responsible for the supervision of the Residential Life department, which includes the direct supervision of the Director and indirect supervision of two Assistant Directors, one Coordinator, one Office Associate, and 55 student staff members. Coordinate all functions of the New Student Orientation Program and Family Program. Serve as the Primary Designated School Official for F-1 Visa students. Adjudicate conduct hearings.

Director of Residential Life, June 2003-May 2005

Responsible for the daily operation of the Residential Life department. Supervised two Coordinators and an Administrative Associate. Coordinated the housing sign-up process for 1,000 residential students, coordinated student staff recruitment and training. Served as a conduct hearing officer. Reported directly to the Dean of Students.

Selected Presentations

“Racial Differences in Alcohol Use”

Southern Association for College Student Affairs Conference, 2008

“Turning Conversations into Research: An Introduction to Q Methodology”

Southern Association for College Student Affairs Conference, 2008

“Single Subject Designs - Using O- and P- Technique Analysis in the Social Sciences”

Southeastern Educational Research Association Conference, 2008