EFFECTS OF SOCIAL CONNECTEDNESS ON BINGE DRINKING AND NEGATIVE DRINKING CONSEQUENCES ON GREEK COLLEGE STUDENTS

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ABSTRACT

Research has been done on college students’ drinking for decades. New and interesting ways of understanding college student’s decisions around alcohol consumption is still developing. This project is framed by identity theory, which in part will attempt to explain how college fraternity/sorority membership affects binge drinking and negative consequences associated with drinking. At its foundation, identity theory focuses on the connections with status positions and memberships. Everyone holds position in their lives that dictate the decisions that they make. This can be seen by different roles that individuals take throughout life; children act under their parent’s guidance, teenagers act to fit in with social groups, parents act as care takers, even educators act within the confines of their position to educate. College students are no different, and members in fraternities and sororities are influenced by their status positions to act in accordance with group expectations.

This project explores the effects of fraternity/sorority membership, and social connectedness on binge drinking rates and negative consequences associated with alcohol consumption. Two separate groups; 374 first semester freshman students and 198 new fraternity/sorority members were surveyed at a medium sized east coast university in the fall of 2009. Due to the unique response to several of the research questions, this project utilizes two analyses of two separate samples.

Results found no significant associations between binge drinking or negative consequences and social connectedness. However, results showed a statistically significant positive association between fraternity/sorority membership and negative consequences. With such inconsistent findings compared to other research projects, these results leave a need for
future research on the connection between fraternity/sorority membership and negative consequences.
ACKNOWLEDGEMENTS

I would like to thank Dr. Susan Bullers for all her help and guidance on this project as well as Ms. Rebecca Caldwell for giving me the opportunity to work on this amazing project.
DEDICATIONS

I would like to dedicate this to my Mother and Father, Shelley and Wade, for all the love and support they have given along the way, it means more to me than you will ever know.
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INTRODUCTION

Overview

Historically, college students and alcohol are inseparable. The majority of students drink during their college career and college students are consistently higher consumers of alcohol than their non-college peers (Wechsler, Kuo, Lee and Dowdall 2000; Office of Applied Studies 2006). Not only are college students drinking at higher rates than their peers, they are reporting serious consequences such as hangovers, missing class, driving under the influence, blackouts, physical violence and even death for their alcohol use (Hingson, Heeren, Winter and Wechsler 2005). A study of mortality and morbidity rates on college alcohol consumption reported that over a thousand students died (1,825) from their alcohol use, and even more were injured and/or hurt (599,000) due to their consumption patterns (Hingson, Zha and Weitzman 2009). Fraternity and sorority groups are of particular interest because of their alcohol consumption and negative consequences associated with their drinking. Though a great deal of research has been done on college student drinking and negative consequences, little research has been done specifically exploring the relationship alcohol consumption, negative consequences and how social connectedness influences these items.

This project utilizes Identity Theory and the Relational Health Index (RHI) to account for social connectedness that influences alcohol consumption within the college setting specifically for fraternity/sorority members. Social connectedness is a term that is utilized for this project to assist in explaining the findings of this research project. Social connectedness is the connection that individuals perceive themselves to have with other individuals from their important social group or groups; e.g.: Does the individual feel valued by their group; Does the individual believe their opinion matters to other in the social group, etc. The more strongly individuals feel they
are valued, the higher their social connectedness becomes. This research tool is of particular
effectiveness due to the importance of group support and acceptance that fraternity/sorority
members place on their organization (Pike 2000, Wilder, Hoyt, Surbeck, Wilder and Carney
1986). The RHI is a standardized research tool that accounts for gender differences in the
creation and sustaining of bonds and relationships, which is why it is being used for this research
project (Jordan, Kaplan, Miller, Striver and Surrey 1991).

Identity theory is also utilized for this project due to its ability to account for personal
identity development through group dynamics and interactions. Identity theory at its core is the
categorization of one’s self in different roles as well as how those roles create expectations for
the individual (Burke and Tully 1977). Within identity theory, the individual’s sense of self is
inherently reflective and can be critical of itself, which McCall and Simmons termed
“identification” (1978). It is important to note that the self-categorization an individual develops
is based on the classified world, which utilizes titles and naming systems (Stryker 1980).
Identity theory focuses on the development of positions within cultural contexts of society with
the understanding that different positions hold specific powers and expectations (McCall and
Simmons 1978). Burke expressed the importance of these expectations and the ability to create a
standard of expectations formed to guide an individual’s behavior (1991). Fraternity and sorority
groups have a unique set of identities that can assist in explaining their actions and reactions to
different situations. College students and fraternity/sorority members in particular decide to
partake in alcohol and other drug use based on their expectations and interactions with other
members of their groups. Identity theory helps to explain the reasoning behind the decisions of
fraternity and sorority member’s drinking behaviors, which is why this theory is part of the
foundation for the project.
Purpose of Study

The primary research question in this study is what effect does social connectedness have on binge drinking and negative consequences for a sample of new fraternity/sorority students? This question arose for this project due to the lack of research that has been done on the topic of social connectedness and college student’s binge drinking. This project attempts to add to the limited body of research building around this subject area. Developing effective prevention strategies to address binge drinking and its consequences is urgent and this project can aid in the development of such strategies.

One prior study (LaBrie, Thompson, Ferraiolo, Garcia, Hutching and Shelesky 2008) examined the relationship between social connectedness, as defined by the RHI, and alcohol consumption for a sample of freshman female students. The study found positive connections between alcohol consumption and relational health as well as a negative relationship between negative consequences and relational health. The project found the respondents with higher relational health scores drank more frequently than their peers with lower relational health. Also, the project found that those who had higher relational health scores experienced fewer negative consequences to their drinking compared to their peers with lower relational health. This is the foundation for this current study with the addition of questions on fraternity/sorority membership and their influence of binge drinking.

The current study attempted to discover the effect of fraternity/sorority membership on binge drinking rates and negative consequences to alcohol consumption. This project is separated into two separate analyses. The first analysis focuses on fraternity/sorority membership and its influence on drinking and negative consequences. This section of the project utilized identity theory to explain the relationships that developed throughout the analysis. The second analysis
focuses on the effects of student’s social connectedness, binge drinking and negative consequences associated with alcohol consumption. For this section of the analysis identity theory and the relational health model are utilized to explain connections that potentially develop.

In conclusion, the relevant literature focus is on identity theory, social connectedness, alcohol consumption, negative consequences associated with alcohol use and fraternity/sorority membership. The methods section explains participant development and retention, instruments, variables description and data analysis. Results section articulates the findings of the project. Following, in the discussion section, ideas and arguments are made for the results. The conclusion section of the paper sums up the application of the project and its limitations.

RELEVANT LITERATURE

Identity Theory

Identity has multiple definitions in sociology literature. This research project was using the definition given by Sheldon Stryker and Peter Burke (1934): Identity is the part “. . .of a self composed of the meanings that persons attach to the multiple roles they typically play in highly differentiated contemporary societies” (Stryker and Burke 2000 p.284). This is a commonly understood and appreciated definition of identity for those who believe that George Herbert Mead and symbolic interaction are important to understanding social interactions.

It is important to note that identity theory originated from the same line of reasoning as structural symbolic interactionism. Structural symbolic interactionism attempts to develop and explain how a social structure affects the self and how in turn the self affects social behaviors (Stryker 1980). “Identity theory derives from a structural interactionist frame, offering an explanation of the choices persons make in situations in which they have the possibility of
enacting alternative role-related actions” (Stryker 2007 p.1084.). Stryker’s description of identity theory gets to the crux of this research project. Research around identity development and drinking behaviors have looking similar aspects of human nature. They are all trying to discover why individuals make a decision over other responsible decisions. College students, specifically fraternity/sorority members respond and react to their environment everyday and this theory is applicable to this student sub-population.

The foundations to this field of research started much earlier in history. Identity theory was built on the writings of William James (1890), John Dewey (1930), George Herbert Mead (1934), Scottish moral philosophers (Bryson 1945) and pragmatic philosophy (Maines 2000). All of these individuals helped to develop the foundation for what a good portion of sociology now knows as identity theory. With their imagery, insights, assumptions and ideas, they helped to better understand how one develops their sense of self.

A key concept is identity theory is role choice behaviors (Stryker 2002). Role choice behaviors are the decisions that individuals make even if there are other options reasonably open to them. The student’s decision is driven by the expectations of their self within the social context. For instance, a student may feel social pressures to consume alcohol when in the presence of other drinking. With this example of role choice behaviors the student has two rational options while participating in the social event, to drink or not to drink. The social pressures felt in this situation make drinking a more relational choice in order to fit in with the group. There still remain two general options however, role choice guides the student to the decision that yields the best result for personal support and role affirmation. As much as this individual is reacting to the stimulations in the environment they are also taking action to continue the perpetuation of the cycle of decisions.
Within identity theory, individuals are considered to be actors and not just reactors to stimuli. Stryker states: “. . . the possibility of choices is a ubiquitous feature of human existence” (2002 p. 1088). Human nature allows for development of rational decisions that move past the flight, fight and freeze basic reactions of all mammals. Identity theory claims that actions and interactions between individuals are critical to the development of the self and to the community. The interactions that happen between individuals are based on the interpretations or definitions of these situations that have been previously defined by society (Stryker 2007).

College culture perpetuates the exploring of the self and defining one’s individualism during their time enrolled in an institution. The relationships that are created that help mold one’s self develop through different channels and experiences. One consistent element of these interactions is how individuals perceive or define the connections they have with others (Ford 2011). Peers influence the interactions that students have in college and their decisions are made based on the connections and expectations of themselves within the group. Though students are not fond of admitting to their control by their groups, group membership is a powerful influencing factor on college students as a whole (Wilder, McKeegan, Midkiff, Skelton and Dunkerly 1997). By examining these relationships through a structural lens researchers can develop more projects to understand the influences of group membership on member’s decisions and actions.

Identity Development of College Students

There is a great deal of literature on college students and identity development. Most research about college students comes from a developmental and psychological frame and not a sociological one (Feldman 1972). There has been a shift in research projects to look at students in terms of the influence of the college experience on identity development. With this shift, a
greater understanding of the importance of the college experience has developed. Due to this change, researchers have examined the influences of the college experience for students all over the world with focus on the different aspects of college student development. Some projects examine the influences of how students from different types of higher education institutions and different economic backgrounds differ in their development of identity. These types of projects have found that lower class students rationalized their positions more critically than their wealthy counterparts, that upper middle class incoming freshman student develop identities differently than their peers, and lower income students develop a personal and institutional stigma that they have to battle while developing identity (Aries and Seider 2007; Karp, Holmstrom and Gray 1998; Granfield 1991; Reay, Crozier and Clayton 2009). All three of these research projects examined the impact of personal and structural influences that college student’s experience that help to define their sense of self. Projects using identity theory have been instrumental in understanding the development of college students who are coming from more diverse and disadvantaged backgrounds. Another direction taken in this field involves a desire for a better understanding of minority students in college due to the lack of research previously done among minority students.

Several projects that were done on identity theory and college students developed in the realm of racial and ethnic identities. Some projects on college students have looked at how racially diverse populations develop their identities when placed in a predominantly white college population. These projects found that traditional thoughts of masculinity and femininity can been seen as unattainable or undesirable by certain racial minority groups. Developing a new definition of masculinity and femininity for these groups are important to the development of these individual within these studies (Ford 2011; Hesse-Biber, Livingstone, Ramirez, Barko,
and Johnson 2010; Mitchell and Dell 1992). These projects have shed a great deal of light on how identity theory can be utilized to understand how minority students develop their identity differently than their majority peers. These are just two directions of the many that identity development has taken over the years. Identity theory can and should be applied to issues of urgency, health and safety issues as it has been applied to other important fields of research.

A shift in research has been needed for more development in fraternity and sorority member identity development, due to the high risk nature of these group’s members. This need has taken several different avenues of research (Longino and Kart 1973). One group of research projects have shown that members of fraternity groups are influenced more by their membership than other expected factors for personal and future expectations of self such as vocational goals and the desire for personal growth (Wilder et al. 1997; Hughes and Winston 1987). Another line of projects has found that members of fraternities have more well rounded cognitive development due to the social interactions that they develop during their time in the organization than their non-fraternity peers (Jakobsen 1986; Pike 2000). A third area of exploration between identity and fraternity/sorority membership is developing values and attitudes of members. Projects have found that fraternity/sorority organizations act as a parental replacement. Family dependence decreases as members spend more time within the fraternal organization (Wilder, Hoyt, Doren, Hauck and Zettle 1978; Wilder et al. 1986). In one surprising study, one project found that their fraternity/sorority members were more accepting of non-white students compared to other campus groups and the local community (Muir 1991). This was argued that the organizations worked closely with the university system, the fraternity/sorority organizations had more contact and collaboration with minority groups which intern built positive relations between the groups.
There is a completely different research track for the research on sorority women compared to fraternity men. The main area of focus for sorority women is in the area of self-esteem development. Projects have found that women who are members of sorority organizations are more likely to have a higher self-esteem and self-worth due to the support from their organization (Saville and Johnson 2007; Atlas and Morier 1994). As can be seen above, fraternity/sorority members are influenced in their identity development a great deal by their organizations. Research needs to be continued in this area of research to better understand other potentials for identity theory in explaining college’s influence on student development.

Social Connectedness

The importance of social support and relationships for women has become an area in the last two decades of interest for many research projects to better understand the intricate workings of their relationships (Boyce, Harris, Silove, Morgan, Wilhelm and Hadzi-Pavlovic 1998; Komproe, Rijken, Ros and Wilhelm 1997). Studies like these have furthered research that found the quality and nature of women’s relationships are more impactful than quantity or structure (Bryant 1985; Fiore, Becker and Coppel 1983). Following this line of thought some gender research projects are transitioning to the Relational Model (Jordan et al. 1991; Miller and Striver 1997) to develop research on women and how their relationship development. Miller (1986) established relational health, developed under the Relational-Cultural model’s theoretical framework that attempts to account for gender differences in the creation and sustaining of relationships and termed social connectedness for this project. Relational health is the strength and affinity of relationships that individuals feel. The Relational-Cultural model explains the two most important aspects of relationships are the differentiation and maturing of one’s sense of self (Jordan 1997) that one develops through meaningful connections with others rather than the
separation-individuation process (Miller and Striver 1997) traditionally utilized in social research projects. The relational model is different from historical models like separation-individuation because of how individuals define who they are as something separate from all other things by accounting for ongoing, growth-fostering connections with others (Jordan 1986; Surrey 1985).

Some critics are concerned that this model over-idealizes caring qualities and denies personal needs in relationship building (Blyth and Fosterclark 1987; Hagerty, Williams, Coyne and Early 1996). Researchers of the relational model have held firm and believe that growth-fostering empowers women and improves their self-worth, vitality, validation, improved knowledge of self, and desire for future connections (Jordan 1997; Westkott 1997). Other critics of the relational model are not convinced of their findings due to a lack of validated instruments designed to reflect the model’s concepts (Liang et al. 2002). Prior to the development of the RHI there was only one measure that examined how individuals perceived their relationships, the Mutual Psychological Development Questionnaire (MPDQ) (Genero, Miller, Surrey and Baldwin 1992). The MPDQ is a 22-item, self report of respondent’s perceptions of the relationships with someone who is close to them. The MPDQ is missing several important and key components that the RHI accounts for, for this reason the RHI is being utilized more regularly.

Relational Health Index

The RHI differs from the MPDQ in the way that it does not ask perceptions of relationships, but rather it is interested in the attitudes and behavioral assessments in a more general context. By moving from perceptions to attitudes and assessment of behaviors, researchers hoped to move from internal perceptions of attitudes to understanding the outside forces acting on an individual. The RHI was developed to reflect the four attributes of growth-
fostering relationships: mutual engagement, authenticity, empowerment, and dealing with conflict (Liang et al. 2002). All four of these subsections account for separate influencing factors that have been found to improve and maintain relationships between women (Jordan 1992, Miller and Striver 1997). The RHI is also interested in three specific types of relationships: mentor, peer, and community relationships.

The mentoring relationships concept was developed due to the lack of research on the influence of mentoring, even though adolescents report that non-parental adults play a major role in their lives (Blyth, Hill and Smith 1982; Garbarino, Burston, Raber, Russell and Crouter 1978). Prior to the development to the RHI most of the research done on mentoring relationships were based on professional relationships and advancement within the corporate world. These projects found that individuals who had professional mentors achieved and had improved feelings of importance to the corporation (Carden 1990; Fox, Waldron, Bohnert, Hishinuma and Nordquist 1998). One study for the development of the mentoring scale was a project done on a group of urban, adolescent girls who reported that mentors who listened, understood, and validated them improved their confidence and ability to achieve (Sullivan 1996).

The peer relationship scale was developed because of the lack of research that reflects quality of relationships not just the quantity of relationships that one holds among peers. One study examined the connections between quality vs. quantity when assessing relationships and found that women with a more intense and intimate friendship group were rated as more socially mature than other girls and boys with a larger social group (Waldrop and Halverson 1975). Research has shown that women’s relationships are self-disclosing, empathetic and intimate, where men’s tend to revolve around shared activities such as sports teams or hobbies (Belle 1987; Booth and Hess 1974; Candy, Troll and Levy 1981).
The community relationships scale developed community and group affiliations and psychological functioning on relationship growth (Jordan 1992). The RHI community scale can also explain relationships that are larger than a dyad. Community connections with social groups are found to influence ones feeling of connectedness and belonging (Jordan 1997). The sense of belonging has been found to have two core components: the feeling of being valued or important to others in the group and the experience of fitting in or being congruent with others (Hagerty, Williams, Coyne and Early 1996). A sense of belonging has been associated with energy for involvement, the desire for meaningful engagement, and the potential for shared or complementary attitudes (Hagerty, Lynch-Sauer, Patusky, Bouwsema and Collier 1992). This sense of belonging is important to college students as well as the college community as a whole, section of the scale is important for a holistic understanding the relationships of college students and the community. The community scale is a great tool to analyze fraternity/sorority member’s social connectedness with the group due to the multiple types of social support that these organizations give to their members.

Social Connectedness and College Students

Relational health is the term that has been given to the strength of relationships measured by the RHI and representing social connectedness for this project. The relational health concept has been used throughout multiple research projects to explain the importance and connectedness that individuals feel about their peers, groups and mentors. Research projects that have examined the strength and success of the RHI found it accounts for subtle qualities and complex dynamics of interactions and relationships (Liang, Belle, Tracy, Taylor, Williams, Jordan and Miller 2002; Frey, Beesley and Newman 2005). There have only been two main studies that have utilized the RHI to assess college student social connectedness.
The first such research project examined the influence of social connectedness on the psychological distress of college students (Frey, Beesley and Miller 2006). Guided by the Relational-Cultural framework, Frey et al. (2006) hypothesized that limiting the growth-enhancing qualities in relationships would be cause for psychological distress. This predicated a number of associations between social connectedness and distress. For example, the research team hypothesized that strong peer, mentor, and community RHI scores would lower psychological distress. This project recruited 245 undergraduate students from a large Midwestern university and found that students with higher RHI scores had less psychological stress. They also found that the relationships that individuals have with their peers in college have a stronger association with their distress than their attachment with their parents (2006).

A second study examined social connectedness, alcohol consumption and negative drinking consequences of 214 female freshman students at a mid-size private Western university (LaBrie et al. 2008). The research team used the RHI to assess the social connectedness that individuals held with their peers, mentors and community. LaBrie et al. found that women with higher RHI scores were more likely to have increased alcohol consumption during drinking occasions and also had fewer negative consequences. LaBrie et al. also provided several potential explanations for their results. First, freshman women feel a responsibility to their peers and groups, thus conducting themselves in a manner that reduces alcohol related consequences. Second, women are taking care of each other, in that they utilize their friends to not only enjoy their time but to also hold them accountable and protect them from the consequences of drinking (2008). This study’s focus on social connectedness and alcohol consumption has opened the door to a new and potentially important area of research for college students. One area to which relational health models can be applied is the fraternity and sorority population.
Fraternity/Sorority groups are known to drink at higher rates than most college students and they also have very strong ties socially with their organizations. Because of these relationships, the social influences of fraternity/sorority membership may affect social connectedness, drinking behaviors, and consequences for members of the group.

Alcohol Consumption among College Students

Alcohol consumption among college students has been a serious problem for decades and is finally receiving the attention that it deserves. Drinking alcohol is an expectation that many college students have when entering their institutions of higher education. Student’s experiences in college are the result of expectations that they hold before and during college. Thus, alcohol consumption is an influential factor on the college experience for many students. Three out of every four underage students has consumed alcohol at some point in their life (Wechsler, Nelson and Weitzman 2000). A large number of college students frequently drink and do so in a manner that is detrimental to the student as well as the college community (Ham and Hope 2003). This is not to say that most students are drinking on a daily basis or even meet the criteria for alcohol dependency (Clements 1999), but these students are drinking in a manner that can be classified as unhealthy.

Harvard’s College Alcohol Study (CAS) found that four out of ten college students engaged in heavy episodic drinking in the last two years. Heavy episodic drinking, also referred to as binge drinking is consuming five or more drinks for a male and four or more drinks for a female in a single sitting. Three out of every four underage students has consumed alcohol at some point in their life. Half of students who binge drink do so more than once a week (Wechsler et al. 2000). One-third of all schools surveyed qualified as high-binge drinking campuses, where at least half of respondents reported being binge drinkers in the last year. The
strongest predictor found for binge drinking was fraternity or sorority membership, among those who reside in the fraternity or sorority house; 80% of women and 86% of men qualified as binge drinkers in the study (Wechsler 1996).

Another national study found two thirds of college students had consumed alcohol in the past month. Among these students more than half reported heavy or binge drinking within the last two weeks (O’Malley and Johnston 2002). Through out the early 21st century many research projects found similar results around national trends of alcohol consumption for college students. The binge drinking scale was utilized in several of the above research projects. It is important to take a moment to explain the importance of this score and why it has been so readily adopted by many projects.

Binge Drinking

Binge drinking is often defined as consuming five or more drinks in one setting for males and four or more for females. Though an arbitrary value it is a well-understood measure that is commonly used in research (Wechsler and Isaac 1992). It is important to realize that the binge drinking measure is utilized often for projects due to its common understanding but has mixed results within research. Connections between binge drinking and year in college have yielded inconclusive results. In one study, 13.9% of first year students reported one binge drinking episode in the last two weeks, whereas 14.8% of seniors reported the same behavior. In the same study the project found that 3.8% of other freshman and seniors reported six or more binge drinking episodes in the last two weeks (Presley, Meilman, Cashin and Lyeria 1996). A second project found fewer binge drinkers among seniors than among first year students (Engs, Hanson and Diebold 1996). Still today researchers are disputing the validity of the binge drinking score and only time will tell if it remains on many influential research projects.
The term binge drinking was developed to describe what was previously known in the literature as “at risk drinking” (Burns and Goodstadt, 1989; Carey, 1995; Pasavac 1993; Perkins, 1992). These terms were not found to be considered accurate and students believed these words to hold a positive connotation thus resulting in a disconnect with students. Actually, one study found that defining drinking as “risky” was appealing to students; these students liked to think of themselves as risk takers (Workman 1998). Another criticism about binge drinking is that it does not account for enough factors in the alcohol consumption process. The binge drinking measure fails to account for what the person is drinking, how long they have been drinking and how large the person may be. All three of these factors are important to accessing how intoxicated a person maybe (Milgram and Anderson 2000). Even with these critics, projects being done today still use the binge drinking measure item for their projects but other questions are used to account for alcohol consumption as well.

Fraternity/Sorority Alcohol Consumption

A vast amount of literature exists about the alcohol consumption habits of fraternity and sorority members around the United States (Bear, Kivlahan and Marlatt 1995; Pascarella and Terenzini 1991; Read, Wood, Davidoff, McLacken and Campbell 2002; Sher, Bartholow and Nanda 2001). Within this literature there have been many attempts to explain the drinking culture within fraternity and sorority groups. Two of the most prominent theories behind these groups drinking behaviors are selection theory and socialization theory. Selection theory focuses on the personal characteristics of an individual that will lead them toward certain experiences, organizations and/or environments. Socialization theory refers to the influence of others on an individual’s experiences, organizations or environments (Pascarella and Terenzini 1991). It has been shown that these systems are not mutually exclusive; in fact they act as reinforcing agents
to each other. Studies have shown that students who drink heavily in high school tend to join fraternities and sororities more often than their lesser drinking peers (Bear et al. 1995; Read et al. 2002). Research has also shown an increase in the alcohol consumption rates of students after they join a fraternity or sorority (Sher et al. 2001; Bartholow, Sher and Krull 2003). The system of selection and socialization are one that trap individuals once they arrive at college. More recent projects have continued to utilize this dual-sided theory to better understand the behaviors and consequences associated with alcohol consumption and fraternity/sorority members. For this current research project these two theories are loosely utilized. They are more utilized through a growth fostering spectrum where these two theories influence college student’s decisions but are not the direct focus of the project.

Caron, Moskey and Hovey (2004) compared the consumption patterns of fraternity and sorority students from 1994 and 2000. The research team collected data from 508 fraternity and sorority members for their project. The project found a decrease from 26.0% to 18.9% between 1994 and 2000 for those who drank more than three times a week. Most heavy drinking occasions moved from bars in 1994 to fraternity parties in 2000. The number of students stayed around 65% in both 1994 and 2000 for those who reported that their drinking increased once they entered their fraternity or sorority organization. This study showed some decreases in the amounts and frequency of consumption over the last decade, however there are still a large number of fraternity/sorority members drinking at unhealthy levels.

Fraternity and sorority members historically have consumed alcohol regularly prior to college, are heavy drinkers who consume several times a week prior to joining their social group and once they join a social fraternity or sorority their drinking typically increases (Borsari and Carey 1999; Sher et al. 2001). Data supports the image of heavy drinking and poor decision-
making for fraternity/sorority groups. Fraternity men consistently drank more often, drank more heavily when consuming and were more likely to think that they have developed a drinking problem than women (De Los Reyes and Rich 2003; DeSimone 2007). Though male’s levels were higher, women still reported having high consumption rates compared to national averages (Caron et al. 2004). These levels remain consistently high and still need to be addressed on colleges around the country. All this data points in one direction, improvement.

Negative Alcohol Consequences of College Students

Alcohol consumption’s negative consequences research for college students date back to the late nineteen seventies in the United States. Ruth Engs (1977) developed a research project that examined the drinking behaviors and negative consequences that college students reported experiencing. Engs created a list of negative consequences that one might experience because of alcohol consumption. The items ranged from minor to major consequences (1977):

“Hangover, Nausea and Vomiting, Driving after drinking, Driving after excessive drinking, Driving while drinking, Missing class because of a hangover, Coming to class after drinking, Being criticized by date because of drinking, Missing classes after drinking, Damaging university property, Setting off false fire alarm, because of drinking, Knowing of problem with drinking, Having trouble with the law because of drinking, Receiving a lower grade because of drinking, Having trouble with school administration because of drinking, Being arrested for driving while intoxicated, and Losing job because of drinking” (P. 2150).

Many of these questions are still used today and there are several questions that have been added to projects to measure additional negative alcohol consequences. Not only did this project set foundation for future projects because of its questions it also found several interesting connections between consumption and negative consequences. The project found that about 20% of the respondents did not experience any negative consequences, 29% reported 1 or 2 problems and 22% reported experiencing three or four problems associated with their drinking
(Engs 1977). This project was supported by several international projects done at the same time on college students that yielded similar findings (Maddox and Williams 1968; Hanson 1974; Orford, Waller and Peto 1974). Though students drink differently now than they did in the 1970s they are still experiencing the same types of consequences as their predecessors.

More recent research has shown that along with their high rates of alcohol consumption, college students are also experiencing serious consequences to their drinking behaviors. One research project compiled data from the National Highway Traffic Safety Administration, Centers for Disease Control and Prevention, national coroner studies, census and college enrollment data for 18-24-year-olds, National Household Survey on Drug Abuse and the Harvard College Alcohol Survey (Hingson et al. 2009). The project discovered that 2.8 million college students had experienced at least one negative consequence in the last year due to their alcohol consumption. These negative consequences are very well documented by all the above sources and include past-year injuries (599,000), had physical assaults (696,000), sexual assaults or date rapes (97,000), and unintended alcohol-related fatalities (1,825) (Hingson et al. 2009).

Another project found that drinkers who drink heavily more frequently were 21 times more likely to experience alcohol-related consequences then their peers who were light or moderate drinkers (Wechsler et al. 2000). Alcohol has also been linked with two-thirds of college student suicides and 95% of violent crimes on college campuses (Commission on Substance Abuse at Colleges and Universities 1994). Other research has found that the consequences that students are experiencing not just personal ramifications but affect the campus community as a whole, due to property damage, victimization and violence (Hoover 2005; Kaly, Heesacker and Frost 2002; Perkins 2002). As can be seen above students and the college community are affected by the negative consequences associated with alcohol consumption.
Several research projects found that the negative consequences associated with drinking and not the actual alcohol consumption were cause for long-term negative outcomes. Students with increased negative consequences to their drinking are more likely to have increased levels of stress and depression, social anxiety and low self esteem (Hutchinson, Patock-Peckham, Cheong, and Nagoshi 1998; Kassel, Jackson and Unrod 2000; Lewis and O’Neill 2000). It is important to understand that although alcohol consumption causes negative consequences for students those consequences are the important product that needs to be addressed and researched. Some students, will develop alcohol dependency issues during their time in college, many more will experience negative consequences that will affect their future (Perkins 2002). Continued research in this area is important to help avoid the detriment caused by negative consequences. Two groups that are historically known for their alcohol consumption and negative alcohol consequences are fraternities and sororities, which are in need of more research projects.

Fraternity/Sorority Negative Alcohol Consequences

As noted above the consumption patterns of students are a serious concern for fraternities/sororities. It is also important to examine their negative consequences that come along with heavy drinking. Several studies have found that fraternity/sorority members have more negative consequences than their non-fraternity/sorority peers (DeSimone 2009; Alva 1998; Wechsler, Dowdall, Davenport and Castillo 1995). Caron et al. examined negative consequences that fraternity and sorority members experienced due to their drinking behaviors. For the fraternity and sorority members in the last 30 days nearly 90% reported experiencing a hangover, 62.7% reported experiencing a black out, 58.2% did something they regretted, 45.8% cut class due to alcohol consumption, 42.8% had sex with someone they would not have normally, 37% allowed a friend to drive while intoxicated, 32.7% of respondents got into a
fight/screaming match or were aggressive while intoxicated, 31% of the fraternity men damaged property and 27% drove a vehicle after knowing they had too much to drink (2004). Fraternity/Sorority populations deal with hangovers, blackouts, damage to self and property, missed classes, dependence issues and alcoholism at higher frequencies than other college populations (DeSimone 2009; Alva 1998). Thus there is strong need so what can be done to improve the health and well being of fraternity and sorority members. As noted in this section and in the alcohol consumption literature, there is a distinct directionality between college students and these topics. This project is hypothesizing that these directionalities are different than commonly found, following the findings of LaBrie et al. (2008) research project.

Hypotheses

Based on previous research, this project has three major hypotheses. This project expects to discover that fraternity/sorority membership has a positive relationship with binge drinking and a negative relationship with negative consequences associated with drinking. This project also expects to find a positive relationship between social connectedness and alcohol consumption. The final relationship expected was between social connectedness and negative consequences and it was expected to be a negative relationship. All these hypotheses are examined and discussed in detail in the follow section.

METHODS

Design and Procedure

Participants

The participants of this project came from two separate groups of students at this east coast university. The first group is a combination of 13 University 101 (UNI101) courses from the fall of 2009. The UNI101 course is only offered to incoming freshman students and is
designed to acclimate them to the college setting. The UNI101 courses completed a paper copy pre-test for the project during the first several weeks of classes.

The second set of participants was a group of new fraternity/sorority members also from the fall of 2009. It is important to note that no historically black fraternity or sorority members were included in the project due to their lack of participation in the new fraternity/sorority member mandatory substance abuse and hazing intervention or the university sanctioned rush process. Sorority participants were given their pre-test at the end of the formal fall rush process, while fraternity participants were given their pre-test three weeks later at the mandatory new fraternity/sorority member substance abuse and hazing intervention. The historically black fraternity/sorority groups are not required to participate in either process so there was no opportunity to collect data from them.

A total of 572 students (374 freshman students and 198 first semester fraternity/sorority members) responded to an internal review board approved pre-test of a study created by the Substance Abuse Education and Prevention Office at a midsize east coast university in the fall of the 2009 academic year. Approximately one month after the pre-test collection process the participants were given a post-test where a total of 430 students (295 freshman students and 135 first semester fraternity/sorority members) responded. The loss of respondents was largely due to the lack of response by the fraternity/sorority members.

For this project, two separate analyses were conducted. In Analysis 1, binge drinking gender, GPA, fraternity/sorority membership and social connectedness were examined, 181 valid cases, a 31% response rate for the project. Analysis 2 examined negative consequences of alcohol consumption, gender, GPA, fraternity/sorority membership, social connectedness and marijuana use resulted in 275 valid cases, a 48% response rate for the project. One explanation
for the lack of response for the data collection is that freshman students are not comfortable
documenting their binge drinking behaviors due to perceived repercussions. Freshman and new
fraternity/sorority members are not yet confident in the academic system’s commitment to
confidentiality and may believe that their scores will be reported to people of importance such as
parents, teachers, administration, etc. A second explanation for the low response rate is due the
fraternity/sorority members being in the honeymoon stage with their organization and not
wanting to respond to questions that they perceive could get them or their organization in trouble
or a negative image. A third explanation is that the majority of students in this study are under
the age of 21 and are not comfortable admitting to doing something illegal that is being
documented. Cases where the dependent and/or independent variables were missing were
removed from the analysis (Wechsler et al. 2000).

Each of the respective post-tests for fraternity/sorority members were sent out during late
October to late November, roughly one month after the pre-test collection process. The UNI101
course participants completed their post-tests at the end of November close to the end of the fall
semester. Fraternity/sorority members completed their post-tests using an online survey system
while the UNI101 courses completed paper copies during their class times. The
fraternity/sorority respondents received a $10 gift card for their participation in the post-test
while the UNI101 courses did not receive any compensation for their participation.

Instruments

Participants completed a survey from a Substance Abuse Prevention and Education
Office’s Education Grant for researching attributes of college students. This project consisted of
demographic variables, relational health, drinking motives, alcohol consumption, and negative
consequences to alcohol and drug use. This project uses several parts of the CORE Alcohol and
other Drug Survey from the U.S. Department of Education (See Appendix A). The CORE survey is a set of questions about the frequency, consequences, quantity and motivations for the consumption of alcohol and use of other drugs.

Variables

Dependent Variables

The Drink variable was measured using Sobell and Sobell’s (1992) Time-Line Follow Back, a self-assessment of drinking and drug behavior that can account for up to several months prior to survey participation if necessary. For this project it is utilized to account for the participants’ last two weeks of binge drinking episodes. This variable is represented by the question: “Think back over the last two weeks. How many times did you have five or more alcoholic drinks in one sitting?” The following values are associated with the answers produced by the respondents: 0.00 = “None,” 1.00 = “Once,” 2.00 = “Twice,” 3.00 = “3-5 Times,” 4.00 = “6-9 Times,” 5.00 = “10 or more times.”

The Consequence variable was measured by utilizing 16 of the 24 negative consequence questions from the survey to create a mean score for each respondent’s answers. The respondents are prompted with the question: “Please indicate how often you have experienced the following due to your drinking or drug use during the LAST 30 DAYS.” To limit the number of items in the score for negative consequences, a factor analysis was run in order to group similar variables together. Due to the broad range and severity of the negative consequences that students were asked to associate with their drinking, it was important for the project to group similar variables to create a more practical variable set for the analysis. There were three distinct groupings of variables. The first group of items would not be considered as serious negative consequences compared to other consequences in the analysis, e.g.: “Said
something I later regretted,” and “Had a hangover.” The second group of consequences students experienced may not have perceived as consequences at all, e.g.: “Missed class,” and “Drinking games”. The final group and the group used for this project were more serious negative consequences that were experienced: “Performed poorly on a test/project,” “Got into trouble with police, residence hall, etc,” “Damaged property, pulled fire alarm, etc,” “Got into an argument or fight,” “Driven a car under the influence,” “Thoughts of having alcohol/drug problem,” “Did something I later regretted,” “Was arrested for DWI/DUI,” “Was taken advantage of sexually,” “Have taken advantage of another sexually,” “Tried unsuccessfully to stop using,” “Was hurt or injured,” “Had unplanned sex,” “Failed to use safe sex practices,” “Had alcohol poisoning” and “Attended class drunk.” This variable was recoded into a “dummy” coded dichotomous variable to be analyzed. For this recode, the dummy coding (a simplified coding of 0 and 1 for a variable with a multitude of values) is 0.00 = “None” and 1.00 = “Any serious negative consequence.”

Independent Variables

Social connectedness is represented by the Social Connectedness variable for this analysis. This variable utilized the 37-item Relational Health Indices (RHI) from a study by Liang et al. (2002). For the purpose of this project the 14-item community relationship section of the RHI was utilized. The greater the score that one receives from the RHI, the more connection and support one feels within his/her community (Liang et al. 2002). Participants were given the 14-item section which is prompted by the statement: “Please indicate the answer that best describes your relationship with: . . . or relationships or involvement with the university community.” The definition of community has been left open to the respondent’s interpretation with the belief that freshman students will focus on their peer groups and fraternity/sorority
members will focus on their fraternal organizations. The items for the community section of the RHI include: “I feel a sense of belonging in this community,” “I feel better about myself after my interactions with this community,” “If members of this community know something is bothering me, they ask about it,” “I feel understood by members of this community,” “I feel mobilized to personal action after meeting with this community,” “It seems as if people in this community really like me as a person,” “I have a greater sense of self-worth through my connections with this community,” “My connections with this community are so inspiring that they motivate me to pursue relationships with other people outside this community,” “This community has shaped my identity in many ways,” and “This community provides me with emotional support.” The following four questions had to be reverse coded to maintain directionality of questioning: “Members of this community are very competitive with each other,” “There are parts of myself I feel I must hide from this community,” “Members of this community are not free to be themselves” and “There is a lot backbiting and gossiping in the community.” Social Connectedness was measured using mean scores: 0.00-3.00 = “low social connectedness” (0.00), and 3.01 – 5.00 = “high social connectedness” (1.00). These cutoff values were developed after running a frequency table of Social Connectedness. The mean score of these were just under the 50% valid response rate creating a dichotomous variable that had about equal number of respondent answering each item.

The Greek variable measures whether the respondent identified as a member of a social fraternity or sorority during the post-test: 0.00 = “No,” 1.00 = “Yes”. The Gender variable asks what gender the respondent most identifies as: 0.00 = “Female” and 1.00 = “Male”. The “Transgendered” attribute was removed due to the low number of respondents that reported this item. Grade Point Average (GPA) is the self reported score on a 4-point scale that the
respondent anticipated earning during that semester. The scores associated with these values are: 0.00 = “1.9 and below,” 1.00 = “2.0-2.4,” 2.00 = “2.5-2.9,” 3.00 = “3.0-3.4,” 4.00 = “3.5-4.0”. The *Marijuana* variable asks the respondent: “During the last 30 days, on how many days did you use marijuana?” The values for this variable are recoded so that they are dichotomous for analysis reasons: 0.00 = “0-3 times a month” and 1.00 = “More than 3 times a month.” This variable was added to the analysis to attempt to account for any influence that the *Marijuana* variable had on the *Consequences* variable. This was due to the broad wording of the Consequence variable, which included not only consequences to alcohol consumption but also to other drugs use (See Dependent Variables).

Data Analysis

This project utilizes two separate data analyses due to the rate at which a group of respondents failed to report the *Drink* variable in the post-test. If only one analysis had been conducted a large portion of those who responded to the negative consequence items would have been lost. Analysis 1 examined the affect of fraternity/sorority membership and social connectedness on binge drinking. Analysis 2 examined the affect of fraternity/sorority membership and social connectedness on negative consequences associated with alcohol consumption. However, no connections were drawn between the two analyses because the analysis examined two separate groups within the same data set. Therefore, each analysis answers the respective research questions without any overlap between the analyses.

The Statistical Package for the Social Sciences (SPSS) was used for data analysis. In order to determine the total number of eligible respondents (N) for each analysis, frequencies, means and standard deviations of the independent variables were examined. Linear regression was employed to examine the relationships between *Drink* as well as *Consequences* with the
selected independent variables. The Beta values were used during the analysis because they create a standardized set of scores to make the analysis more understandable. Regression diagnostics were run to identify any collinearity issues, however this did not prove to be an issue in any of the analyses. More specifically a regression was run with each individual independent variable on all other independent variables to discover any high R square values. This analysis revealed tolerance scores for the variables between .94 and .96 and variance inflation factors between 1.04 - 1.06. Both the tolerance and variable inflation factors fall within the expected range, consequently it can be concluded that there is no collinearity between any of the variables.

Analysis 1

Analysis 1 examines the connections between fraternity/sorority membership and social connectedness on binge drinking. Descriptive statistics and linear regression are used to answer the research questions interested in fraternity/sorority membership’s influence: Does fraternity/sorority membership affect binge drinking rates? Does fraternity/sorority membership affect negative consequences to alcohol consumption?

Analysis 2

Analysis 2 examines connections between fraternity/sorority membership and social connectedness on negative consequences associated with alcohol consumption. Descriptive statistics and linear regression are used to answer the research questions interested in social connectedness’s influence: Does social connectedness affect binge drinking rates? Does social connectedness affect negative consequences associated with alcohol consumption?

RESULTS

Analysis 1
Table 1 examines the frequencies, means and standard deviations of Drink. As noted above, a total of 181 respondents are examined for this portion of the analysis. This again is due to the low response rate of Drink from the new fraternity/sorority members in the post-test analysis. This initial analysis shows that males (1.457) report binge drinking more often than their female (1.240) counterparts, respondents with lower social connectedness (1.422) binge drink more frequently than those who reported higher social connectedness (1.290), fraternity/sorority members (1.359) reported binge drinking only slightly more than non-fraternity/sorority members (1.328) and those with a GPA of 3.5-4.0 (1.218) and 3.0-3.4 (1.260) binge drink less than those with a GPA of 2.5-2.9 (1.600) and 2.0-2.4 (2.667). (See Table 1).

Table 2 examines the linear regression of Gender, Greek, GPA, and Social Connectedness on Drink. This analysis discovered that GPA was found to have a negative connection (-0.153) with binge drinking and was the only statistically significant variable of the analysis with a significance of 0.047. This result supports the findings of other research projects that the better a student’s academics the less the student consumes alcohol (Singleton 2007). This was the only variable that was found statistically significant for this analysis. This analysis did not find any significant effect of fraternity/sorority membership on binge drinking. This discovery was surprising due to the extensive amount of literature in this area a research that produces different results. Other projects have found the fraternity/sorority membership was or was one of the most important influencing factors of alcohol consumption (Bartholow et al. 2003; Sher et al. 2001; Wechsler et al. 2008). The project also did not find a relationship between participant’s gender and binge drinking as other research projects have also found (Clements 1999). (See Table 2).

Analysis 2
According to table 3, males (.575) were found to report more frequent negative consequences than females (.454). These findings are congruent with historical findings that males experience more negative consequences to their drinking compared to their female counterparts due male’s lack of social support systems and social expectations of being male (Wechsler et al. 2000). Those with higher social connectedness (.518) experienced more negative consequences than those with lower social connectedness (.473). Students who are more socially active with their community are placed in a greater number of situations where experiencing negative consequences is more probable than their peers who are not as socially active. Fraternity/sorority members (.649) reported negative consequences more frequently than non-fraternity/sorority students (455). These findings supported by other research projects that have found fraternity/sorority membership being positively linked to increased negative consequences due to the organizations’ close relationship with alcohol use (Caron et al. 2004). Those with a GPA of 3.5-4.0 (.447) or 3.0-3.4 (.506) reported experiencing less negative consequences compared to those with a GPA of 2.5-2.9 (.554) or 2.0-2.4 (.800). As shown those with GPA of 2.4 or below experienced significantly more negative consequence then those with higher GPA scores. Research has shown that students with higher GPAs experience fewer negative consequences (Singleton 2007). These results are inline with other research projects in this field. Respondents who smoked marijuana more than three times a month (4.89) experienced negative consequences only slightly less then marijuana smokers who smoked less than three times a month (.496). Marijuana users are experiencing negative consequences at similar rates resulting that students who smoke only a little of a great deal of marijuana experience similar negative consequences to their decisions (See Table 3).
Table 4 examines a linear regression of Gender, Greek, GPA, Marijuana, and Social Connectedness on Consequence. The regression found that Gender (0.126) is statistically significant (0.040) for the analysis. The results for this analysis showed that gender is a significant influence on the negative consequences that were found in the analysis. This conclusion is supported by previous research, that state men and women experience different negative consequences at different rates (Wechsler et al. 2008). The analysis also found that Greek (0.201) is statistically significant with a significance score of 0.001. Fraternity/sorority members are experiencing negative consequences at a greater rate than their non-fraternity/sorority peers (DeSimone 2009; Alva 1998). The GPA variable also approaches significance but does not meet any of the significance standards. Other projects have found a significant negative relationship between high GPA scores and negative consequences to alcohol consumption. This project also did not find a significant relationship between social connectedness and negative consequences to alcohol consumption. Meaning there is no significant influence of social connectedness on the development of rate of negative consequences due to alcohol consumption as was previously hypothesized. Those who smoked marijuana also did not have any significant influence on negative consequences. As was previously noted this variable was placed in the analysis for the sole purpose of removing any bias from the project when assessing marijuana use from the negative consequence variable. The results showed as expected that there is not significant relationship between negative consequences and marijuana use (See Table 4).

DISCUSSION

Analysis 1
Does fraternity/sorority membership affect binge drinking rates? This project did not find any connections between fraternity/sorority membership and binge drinking. Multiple research studies (Sher et al. 2001; Bartholow et al. 2003) have found that being a member of a fraternity/sorority organization increase the likelihood of alcohol consumption. One reason for the lack of connection between Greek and Drink for the two groups in this analysis is due to the similarity in the response rates about their binge drinking (See Table 1). This project compared incoming freshman to new fraternity/sorority members which, according to the sample, binge drink at similar rates. These groups may be binge drinking at similar rates due to the expectations of the freshman year experience and new membership to the fraternal organization. Moving into these new positions, students are more likely to try to fit the expectations of these roles even if that means making poor decisions to do so. One way that many students try to meet these new expectations is by using alcohol and other drugs to overcome personal doubts about fitting in, help building confidence, overcoming social awkwardness and minimize inhibitions. This idea holds true for both fraternity/sorority members and non-fraternity/sorority members alike.

One thing to note about the first year fraternity/sorority members and their binge drinking is there is a potential underreporting due to their developmental stage with the group. At the time of the post-test the members had been in the organization only a few months and were potentially still in the honeymoon stage with the group and its members. This first stage of any relationship produces skewed expectations and realizations due to the excitement and youthfulness of the relationship.

Does social connectedness affect binge drinking rates? This project found no significant relationship between social connectedness and binge drinking. The Relational Health Index
findings from one project (LaBrie et al. 2008) found a positive relationship between social connectedness and alcohol consumption of their sample. For the men in the sample this was partially expected. Men have not been found to report strong measures for the RHI in previous studies (Liang et al. 2002). Men develop their relationships around events or commonality (Wilder et al. 1997) not around growth-fostering friendships like women (Jordan 1986; Surrey 1985). Since men create friendships around organizations, research needs to be examining men not from a growth-fostering evaluation but from a bonding perspective. Men and women are both significantly influenced by their peers, but men evaluate their relationships differently than women and developing this further is important to future research on the alcohol consumption among men. LaBrie et al. (2008) found that women with higher relational health drank more alcohol than those with lower relational health scores. Here again this connection was not found in this research. This post-test was distributed to the respondents four weeks after the pre-test. It seems that students will need more than four weeks to develop their social connectedness with their peer groups. Though the post-test was given at the end of the first semester it is arguable that more time would be needed to properly build relationships for this kind of analysis.

Analysis 2

Does fraternity/sorority membership affect negative consequences associated with alcohol consumption? This project found a statistically significant relationship between fraternity/sorority membership and negative consequences. Fraternity/sorority members are experiencing negative consequence more often than their non-fraternity/sorority peers. Two significant research projects (Alva 1998; DeSimone 2009) have found that fraternity/sorority membership increases the number of negative consequences that students experience.
One explanation of the findings of this portion of the project is that fraternity/sorority members are acting and reacting to their alcohol decision in a more detrimental way then their non-fraternity/sorority peers. Fraternity/sorority members are making decisions that are resulting in negative consequences due to their alcohol consumption. This point is arguable that this is potentially due to their position within their fraternal organization. Fraternity/sorority member’s decisions are strongly influenced by their group because of the powerful relationships within the organization. With this strong support from fellow members individuals feel protected by their peers and the group as a whole. The second half of the explanation for this analysis is that fraternity/sorority groups are not acting as a protection to the poor alcohol decisions that members are making. Members of these groups believe their being protected and make more detrimental decision because of the perception of this false protection. Identity theory places the development of decisions as a two-way interaction; an action and a reaction. Due to the nature of this connection, it is understandable that fraternity/sorority members are making decision that are more dangerous or reckless because of the perceived support and protection within the group.

Does social connectedness affect negative consequences associated with alcohol consumption? This project did not find any connections between social connectedness and negative consequences. It is arguable that if the analysis had examined two different college populations the significance levels could have been stronger for the analysis. To better account for the social connectedness variable in the analysis, the project could have used all three sections of the index, not just the community section. LaBrie et al. (2008) found a negative connection between relational health and negative consequences in their all female study. With further research into the topic of social connectedness it is important to consider all three of the RHI sections. Only using one of the RHI sections only gives one piece of the index, not the
entire impactful index. It is arguable that examining the all three sections of the RHI would result in stronger and more significant relationships for this kind of project.

CONCLUSION

The original hypotheses for this project were not confirmed. The social connectedness score was not found to be as important as thought earlier in the study. With more research projects incorporating the Relational Health Index, this current project hoped to add to the body of research developing around this topic. The RHI is an important and valid measure that has potential for understanding the relationships of college students. Though the results were not as previously expected a great deal of research was gathered for the RHI in this project. With the lack of a significant relationship between social connectedness and binge drinking or negative consequences a different strategy may be needed in the future to gain a better understanding social influences on college students. One solution is to incorporate all three sections of the RHI and not just a single section of the index. This will help account for a much broader understanding of social connectedness that students actually experience.

Also found in the analysis, fraternity/sorority membership was found to have a significant positive relationship with negative consequences. Research has shown time and time again that fraternity/sorority membership is a powerful influence for alcohol consumption for college students. This project further supports previous research that college administrators need to be working diligently to educate and in turn prevent the negative ramifications that fraternity/sorority members experience. Also found, fraternity/sorority membership influenced relationship in the opposite direction as other projects had previously found. The direction that was previously hypnotized was negative, in which fraternities/sororities protected their members from negative consequences. With the development of the relationship between
fraternity/sorority membership and negative consequences being positive practitioners from this university should focus future initiatives to improve education and programming around negative consequence reduction.

Another important development that came from the analysis was the connection between GPA and negative consequences. For Analysis 2 the connection between GPA and binge drinking was approaching significance and for Analysis 1 it was found to be significant at the .05 level. As was shown GPA can play a significant role in reducing negative consequences and may potentially decrease binges drinking. There is potential for programming and prevention efforts around this topic that institutions could use in their prevention efforts and needs to be developed further.

The final significant relationship that developed from the analysis was between gender and negative consequences. Gender may influence negative consequences compared to the other variable that were examined. Males and females experiences during college are completely different especially when examining their relationships with alcohol. Gender programming is extremely important to prevention and education initiatives due to the nature of alcohol consumption. The results of this project hope to support and continue to improve future gender research for college students.

Application

The future potential for the RHI can help to understand the needs of research populations when looking at drugs and alcohol consumption. A great deal of potential exists to utilize the RHI to not only understand fraternity/sorority group’s social connectedness but to also develop prevention and campus programming efforts for students. It is important to understand the reality between fraternity/sorority’s social connectedness, negative consequences and alcohol
consumption in order to better address the needs of this population. This East coast university where this research was conducted has a focus on educational programming for its students and this research project provides insight into another level of programming to the existing campus initiatives.

One future potential research project for this work with social connectedness is to examine sorority members’ social connectedness, binge drinking and negative consequences. It sub project would compare sorority members with a more general student population to examine how these scores compare to the LaBrie et al. (2008) project. It would be interesting to see if the connections that influenced the 2008 study could be seen with the sorority members since this project did find some connections with fraternity/sorority membership.

Limitations

The first limitation of the project is that the respondents are not randomly assigned to the different response groups. The students in the UNI101 course took the course to get acclimated to the college setting and fraternity/sorority members elected to participate in the rush process. To add another layer of bias to the project, the UNI101 groups were selected for the intervention by their course professor. This may skew the data so that the majority of respondents will have skewed binge drinking rates than the actual freshman class based on their decisions to enter different interest groups. Due to these limitations this project cannot be generalized to the college population as a whole. However, it does give unique insight into the attitudes and behaviors of specific group of freshman and new fraternity/sorority members at this institution.

Also, in this study the negative consequence score asks respondents: “Please indicate how often you have experienced the following due to your drinking or drug use during the LAST 30 DAYS.” This question does not specifically ask about alcohol use and it also incorporates a
drug use component. In order to account for this discrepancy the tables discussed above had marijuana use included in Analysis 2. Though alcohol and marijuana use are being accounted for there are still many other drugs that could have affected the negative consequences of these students for which I did not account.

One concern that could be addressed in the future would be to add the other RHI sections to the analysis to produce a more well-rounded relational health variable. This project only accounted for the community relational health section of the RHI and it may be necessary to combine the friend and mentor sections to the research project to access a fully comprehensive RHI score.


**Table 1: Descriptive Statistics and Drink for Analysis 1**

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>% Valid</th>
<th>Mean Drink Scores(s.d.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0. Female</td>
<td>100</td>
<td>51.20%</td>
<td>1.240 (0.99)</td>
</tr>
<tr>
<td>1. Male</td>
<td>81</td>
<td>48.80%</td>
<td>1.457 (1.04)</td>
</tr>
<tr>
<td><strong>Social Connectedness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0. Lower Social Connectedness</td>
<td>64</td>
<td>37.60%</td>
<td>1.422 (1.00)</td>
</tr>
<tr>
<td>1. Higher Social Connectedness</td>
<td>117</td>
<td>62.40%</td>
<td>1.290 (1.02)</td>
</tr>
<tr>
<td><strong>Greek</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0. No</td>
<td>128</td>
<td>70.20%</td>
<td>1.328 (1.03)</td>
</tr>
<tr>
<td>1. Yes</td>
<td>53</td>
<td>29.80%</td>
<td>1.359 (0.98)</td>
</tr>
<tr>
<td><strong>GPA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0. 1.9 or Lower</td>
<td>0</td>
<td>0.00%</td>
<td>0.000 (0.00)</td>
</tr>
<tr>
<td>1. 2.0-2.4</td>
<td>3</td>
<td>3.30%</td>
<td>2.667 (0.58)</td>
</tr>
<tr>
<td>2. 2.5-2.9</td>
<td>35</td>
<td>23.10%</td>
<td>1.600 (1.06)</td>
</tr>
<tr>
<td>3. 3.0-3.4</td>
<td>96</td>
<td>50.00%</td>
<td>1.260 (0.98)</td>
</tr>
<tr>
<td>4. 3.5-4.0</td>
<td>47</td>
<td>23.60%</td>
<td>1.218 (1.00)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>181</td>
<td>100.00%</td>
<td>1.337 (1.01)</td>
</tr>
</tbody>
</table>

**Table 2: Linear Regression of Drink on Gender, Greek, GPA, and Social Connectedness**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Beta</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>0.083</td>
<td>0.292</td>
</tr>
<tr>
<td>Greek</td>
<td>0.036</td>
<td>0.642</td>
</tr>
<tr>
<td>GPA</td>
<td>-0.153*</td>
<td>0.047</td>
</tr>
<tr>
<td>Social Connectedness</td>
<td>-0.025</td>
<td>0.738</td>
</tr>
</tbody>
</table>

N=181

*p <.05  **p <.01  ***p <.001
### Table 3: Descriptive Statistics and Consequences for Analysis 2

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>% Valid</th>
<th>Mean Negative Consequence Scores(s.d.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0. Female</td>
<td>185</td>
<td>54.90%</td>
<td>0.454 (0.50)</td>
</tr>
<tr>
<td>1. Male</td>
<td>120</td>
<td>45.10%</td>
<td>0.575 (0.50)</td>
</tr>
<tr>
<td><strong>Social Connectedness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0. Lower Social Connectedness</td>
<td>110</td>
<td>34.00%</td>
<td>0.473 (0.50)</td>
</tr>
<tr>
<td>1. Higher Social Connectedness</td>
<td>195</td>
<td>66.00%</td>
<td>0.518 (0.50)</td>
</tr>
<tr>
<td><strong>Greek</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0. No</td>
<td>231</td>
<td>68.60%</td>
<td>0.455 (0.50)</td>
</tr>
<tr>
<td>1. Yes</td>
<td>74</td>
<td>31.40%</td>
<td>0.649 (.048)</td>
</tr>
<tr>
<td><strong>GPA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0. 1.9 or Lower</td>
<td>0</td>
<td>0.00%</td>
<td>0.000 (0.00)</td>
</tr>
<tr>
<td>1. 2.0-2.4</td>
<td>5</td>
<td>2.60%</td>
<td>0.800 (0.45)</td>
</tr>
<tr>
<td>2. 2.5-2.9</td>
<td>57</td>
<td>20.30%</td>
<td>0.544 (0.50)</td>
</tr>
<tr>
<td>3. 3.0-3.4</td>
<td>158</td>
<td>52.30%</td>
<td>0.506 (0.50)</td>
</tr>
<tr>
<td>4. 3.5-4.0</td>
<td>85</td>
<td>24.80%</td>
<td>0.447 (0.50)</td>
</tr>
<tr>
<td><strong>Marijuana</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0. Minimal or No use</td>
<td>230</td>
<td>83.80%</td>
<td>0.496 (0.50)</td>
</tr>
<tr>
<td>1. Moderate to Heavy</td>
<td>45</td>
<td>16.20%</td>
<td>0.489 (0.51)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>275</td>
<td>100.00%</td>
<td>0.502(0.50)</td>
</tr>
</tbody>
</table>

### Table 4: Linear Regression of Consequences on Gender, Greek, GPA, Social and Marijuana

<table>
<thead>
<tr>
<th>Variables</th>
<th>Beta</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>0.126*</td>
<td>0.040</td>
</tr>
<tr>
<td>Greek</td>
<td>0.201**</td>
<td>0.001</td>
</tr>
<tr>
<td>GPA</td>
<td>-0.114</td>
<td>0.062</td>
</tr>
<tr>
<td>Marijuana</td>
<td>0.030</td>
<td>0.611</td>
</tr>
<tr>
<td>Social Connectedness</td>
<td>0.519</td>
<td>0.270</td>
</tr>
</tbody>
</table>

N=275

*p <.05  **p <.01  ***p <.001
APPENDIX

Changing a High Risk Drinking Culture through the Lens of Gender

Unique ID ______________

To develop your 8-character unique ID, put:

1. The year you were born (4 digits)
2. Your middle initial (if you don’t have one put Z)
3. Your day of birth (2 digits)
4. Your first initial.

Example: 1992 + H + 05 + K = 1992H05K

Dear Survey Participant:
Thank you again for agreeing to participate in the “Changing a High-Risk Drinking Culture through the Lens of Gender” research study. This survey is not a test—there are no right or wrong answers. The best answer is the one that best describes who you are, what you think, or what you believe. Remember: participation in this survey is VOLUNTARY. We would like for you to answer all the questions, but if any make you uncomfortable, please skip them. Also, please remember this survey is CONFIDENTIAL. Your name will never be linked with the answers you give, so please answer the questions HONESTLY and to the best of your ability.

The survey will consist of 4 sections. The first asks questions about your alcohol use and the campus environment, the second asks about your expectations of alcohol use, the third asks about your relationships, and the fourth asks general demographic questions (e.g., your age and gender).

Please follow all instructions carefully and complete all sections of this survey. Thank you again for your time.
Section 1: Quantity, Frequency, Consequences (QFC) of Alcohol & Drug Use

The questions below ask about your personal behaviors, beliefs, and opinions about alcohol and the campus environment. Please fill in all boxes completely and with a dark pencil. If you change an answer, please erase it completely.

1. Think back over the last 2 weeks. How many times did you have 5 or more alcoholic drinks at a sitting?
   None   Once   Twice   3 to 5 times   6-9 times   10 or more times

2a.) How many drinks do you have on average when you go out/party/socialize with other students?
   0     1-2     3     4     5     6-7     8-9     10-14     15 or more

2b.) How many drinks do you consume on average in a week?
   0     1-3     4-6     7-10     11-15     16-20     21-30     30 or more

2c.) During the last 30 days, on how many days did you consume alcohol?
   0     1-3     4-6     7-10     11-15     16-20     21-30     every day

2d.) During the last 30 days, on how many days did you use marijuana?
   0     1-3     4-6     7-10     11-15     16-20     21-30     every day

3. When the following people go out or "party", how many standard drinks do you believe that they have on an average occasion? (One drink is defined as a 12 oz. beer, a 5 oz. glass of wine, a 1.5 oz. shot of liquor, or a mixed drink). State your best estimate.

   a.) Yourself
   b.) Your friends
   c.) UNCW students in general
   d.) UNCW males
   e.) UNCW females
   f.) Fraternity men
   g.) Sorority women
   h.) Male Athletes
   i.) Female Athletes

   0     1     2     3     4     5     6-7     8-9     10+

4. Please indicate how often you have experienced the following due to your drinking or drug use during the LAST 30 DAYS (mark one for each line)

   None   Once   Twice   3-5 Times   6-9 Times   10+ Times

   a.) Had a hangover
   b.) Performed poorly on a test/project
   c.) Trouble with police, residence hall, etc.
   d.) Damaged property, pulled fire alarm, etc.
   e.) Got into an argument or fight
   f.) Got nauseated or vomited
   g.) Driven a car while under the influence
   h.) Missed a class
   i.) Been criticized by someone I know
   j.) Thoughts of having alcohol/drug problem
   k.) Had a memory loss
   l.) Said something I later regretted
   m.) Done something I later regretted
   n.) Been arrested for DWI/DUI
   o.) Have been taken advantage of sexually
   p.) Haven taken advantage of another sexually
   q.) Tried unsuccessfully to stop using
   r.) Been hurt or injured
   s.) Had unplanned sex
   t.) Failed to use safe sex practice
   u.) Had alcohol poisoning
v.) Attended class hung over
w.) Attended class drunk
x.) Played drinking games

5. Within the last year, how do you think alcohol use has affected your academic performance? (Choose only the ONE most serious outcome)
   a.) I do not drink. This question is not applicable to me.
   b.) My academics have not been affected by this issue
   c.) Received a lower grade on an exam or important project
   d.) Received a lower grade in the course
   e.) Received an incomplete in the course
   f.) Dropped the course
   g.) Dropped out of school / took a leave of absence
   h.) Lowered your GPA

6. During the last year, when you socialized/went out/partied*, how often did you …

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Usually</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.) Choose not to drink alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.) Alternate non-alcoholic with alcoholic beverages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.) Determine, in advance, not to exceed a set number of drinks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.) Watch out for friends who may have had too much alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.) Use a designated driver</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f.) Eat a full meal before drinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g.) Keep track of how many drinks you were having</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h.) Pace your drinks to 1 or fewer drinks per hour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i.) Rode with a driver who had been drinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j.) Avoid drinking games</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k.) Calculate your Blood Alcohol Concentration (BAC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Do you take any medicine with a doctor’s prescription for any of the following? (Mark all that apply)
   □ Depression
   □ Blood pressure
   □ Anxiety
   □ ADD/ADHD
   □ Allergies
   □ Weight loss
   □ Birth control
   □ Diabetes
   □ Chronic Skin Conditions
   □ Short-term illness
   □ Asthma
   □ Other _________
   □ No, I don’t take any medication prescribed to me.

8. If you wanted to get prescription drugs WITHOUT a doctor’s prescription, where would you get them? (Mark all that apply)
   □ From my friends or other people I know without paying for them
   □ From my friends or other people I know by paying for them
   □ From my parents or other adults (with their permission)
   □ Sneak them from my parents or other adults (without them knowing)
   □ At a rave or party
   □ From an internet site
9. How often do you use the following prescriptions WITHOUT a doctor’s prescription?

<table>
<thead>
<tr>
<th>How often do you use the following prescription drugs WITHOUT a doctor’s prescription?</th>
<th>NEVER</th>
<th>BEFORE, BUT NOT IN PAST YEAR</th>
<th>A FEW TIMES IN PAST YEAR</th>
<th>ONCE OR TWICE A MONTH</th>
<th>ONCE OR TWICE A WEEK</th>
<th>ALMOST EVERY DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Pain medication (i.e., opioids such as Vicodin®, OxyContin®, Tylenol 3 with Codeine®, Percocet®, Darvocet®, morphine®, hydrocodone, oxycodone)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Stimulant medication (e.g., Ritalin®, Dextedrine®, Adderall®, Concerta®, methylphenidate)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Sleeping medication (e.g., Ambien®, Halcion®, Restoril®, temazepam and triazolam)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Sedative/Anxiety medication (e.g., Ativan®, Xanax®, Valium®, Klonopin®, diazepam and lorazepam)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. During the past year, have you taken any of the following PRESCRIPTION drugs that were NOT prescribed for you by a doctor? Check all that apply.

- [ ] OxyContin®
- [ ] Percocet/Percodan®
- [ ] Darvocet®
- [ ] Adderall®
- [ ] Ambien®
- [ ] Restoril®
- [ ] Xanax®
- [ ] Vicodin®
- [ ] Codeine/Tylenol 3 with codeine®
- [ ] Ritalin®
- [ ] Concerta®
- [ ] Halcion®
- [ ] Ativan®
- [ ] Valium®

11. For the times when you have used prescription drugs WITHOUT a doctor’s prescription, please indicate how often you used them for each reason below:

<table>
<thead>
<tr>
<th>For the times when you have used prescription drugs WITHOUT a doctor’s prescription, please indicate how often you used them for each reason below:</th>
<th>NEVER</th>
<th>BEFORE, BUT NOT IN PAST YEAR</th>
<th>A FEW TIMES IN PAST YEAR</th>
<th>ONCE OR TWICE A MONTH</th>
<th>ONCE OR TWICE A WEEK</th>
<th>ALMOST EVERY DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. To relieve pain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. To treat infection, allergies, illness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. To have fun or get high</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. To add muscle, strength, endurance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. To increase concentration/study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. To relieve depression/anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. To sleep/stay awake</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. To lose weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
12. How many “close” friends do you have? ______

Of those friends that you consider to be “close” friends, how many do you think have taken any of the following PRESCRIPTION drugs that were NOT prescribed for them by a doctor in the past year?

<table>
<thead>
<tr>
<th>DRUG</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>OxyContin®</td>
<td></td>
</tr>
<tr>
<td>Vicodin®</td>
<td></td>
</tr>
<tr>
<td>Codeine/Tylenol 3 with codeine®</td>
<td></td>
</tr>
<tr>
<td>Percocet/Percodan®</td>
<td></td>
</tr>
<tr>
<td>Darvocet®</td>
<td></td>
</tr>
<tr>
<td>Ritalin®</td>
<td></td>
</tr>
<tr>
<td>Adderall®</td>
<td></td>
</tr>
<tr>
<td>Concerta®</td>
<td></td>
</tr>
<tr>
<td>Ambien®</td>
<td></td>
</tr>
<tr>
<td>Halcion®</td>
<td></td>
</tr>
<tr>
<td>Restoril®</td>
<td></td>
</tr>
<tr>
<td>Ativan®</td>
<td></td>
</tr>
<tr>
<td>Xanax®</td>
<td></td>
</tr>
<tr>
<td>Valium®</td>
<td></td>
</tr>
</tbody>
</table>
Section 2: Motives for Drinking

Below is a list of reasons people give for drinking alcoholic beverages. Using the response categories below, please indicate how often you drink for each of the following reasons. There are no right or wrong answers to these questions. We just want to know about the reasons why you usually drink when you do.

If you never drink alcohol (i.e. have not had a drink in the last 12 months), check here and skip to Section 3.

Please fill in all boxes completely and with a dark pencil. If you change an answer, please erase it completely.

Response scale
1. Never
2. Almost never
3. Some of the time
4. About half of the time
5. Most of the time
6. Almost always

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.) How often do you drink to forget your worries?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.) How often do you drink because it improves parties and celebrations?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.) How often do you drink because it’s exciting?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.) How often do you drink so you won’t feel left out?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.) How often do you drink because your friends pressure you to drink?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f.) How often do you drink because it helps you enjoy a party?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g.) How often do you drink because you feel more self-confident or sure of yourself?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h.) How often do you drink to be liked?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i.) How often do you drink because it’s fun?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j.) How often do you drink to cheer up when you’re in a bad mood?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k.) How often do you drink to celebrate a special occasion with friends?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l.) How often would you say you drink to fit in with a group you like?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
m.) How often would you say you drink to be sociable?

n.) How often do you drink because you like the feeling?

o.) How often do you drink because it helps you when you feel depressed or nervous?

p.) How often do you drink because it gives you a pleasant feeling?

q.) How often do you drink to forget about your problems?

r.) How often do you drink because it makes social gatherings more fun?

s.) How often do you drink to get drunk or high?

t.) How often do you drink so that others won’t kid you about not drinking?
**Section 3: Relationships**

Please indicate the answer that best describes your relationship with: a close friend, your most important mentor, or your relationship or involvement with the university community.

*Please fill in all boxes completely and with a dark pencil. If you change an answer, please erase it completely.*

**Response scale**

1. Never  
2. Not often  
3. Some of the time  
4. Often  
5. Always

<table>
<thead>
<tr>
<th></th>
<th>1 Never</th>
<th>2 Not Often</th>
<th>3 Some of the time</th>
<th>4 Often</th>
<th>5 Always</th>
</tr>
</thead>
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<tr>
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3. Some of the time  
4. Often  
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ej.) I feel as though I know myself better because of my mentor.
|   |   |   |   |   |   |
f.) My mentor gives me emotional support and encouragement.
|   |   |   |   |   |   |
g.) I try to emulate the values of my mentor (such as social, academic, physical/athletic, and religious).
|   |   |   |   |   |   |
h.) I feel uplifted and energized by interactions with my mentor.
|   |   |   |   |   |   |
i.) My mentor tries hard to understand my feelings and goals (academic, personal, or whatever is relevant).
|   |   |   |   |   |   |
j.) My relationship with my mentor inspires me to seek other relationships like this one.
|   |   |   |   |   |   |
k.) I feel comfortable expressing my deepest concerns to my mentor.

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a.) I feel a sense of belonging in this community.
|   |   |   |   |   |
b.) I feel better about myself after my interactions with this community.
|   |   |   |   |   |
c.) If members of this community know something is bothering me, they ask about it.
|   |   |   |   |   |
d.) Members of this community are not free to be themselves.
|   |   |   |   |   |
e.) I feel understood by members of this community.
|   |   |   |   |   |
f.) I feel mobilized to personal action after meetings with this community.
|   |   |   |   |   |
g.) There are parts of myself I feel I must hide from this community.
|   |   |   |   |   |
h.) It seems as if people in this community really like me as a person.
|   |   |   |   |   |
i.) There is a lot of backbiting and gossiping in this community.
|   |   |   |   |   |
j.) Members of this community are very competitive with each other.
|   |   |   |   |   |
k.) I have a greater sense of self-worth through my connections with this community.
|   |   |   |   |   |
l.) My connections with this community are so inspiring that they motivate me to pursue relationships with other people outside this community.
|   |   |   |   |   |
m.) This community has shaped my identity in many ways.
|   |   |   |   |   |
n.) This community provides me with emotional support.
Section 4: Demographic Information

The questions below ask general questions about you. Please fill in all boxes completely and with a dark pencil. If you change an answer, please erase it completely.

1. What is your gender?
   Male
   Female
   Transgendered

2. What is your class at UNCW?
   Freshman
   Sophomore
   Junior
   Senior

3. What is your age?
   18 or under
   19 or 20
   21 to 23
   24 or older

4. What is your estimated Grade Point Average (GPA)?
   3.5-4.0
   3.0-3.4
   2.5-2.9
   2.0-2.4
   1.9 or below
   I don’t know

5. What is your living status?
   On-campus with roommate(s)
   On-campus alone
   Off campus with roommate(s)
   Off-campus alone
   Off-campus with partner
   Off-campus with family

6. How many hours do you work per week?
   0 hours
   1-10 hours
   11-20 hours
   21-30 hours
   31-40 hours
   41 or more hours

7. What is your ethnic origin?
   American Indian
   Hispanic
   Asian/Pacific Islander
   Caucasian (non-Hispanic)
   African-American (non-Hispanic)
   Other

8. What is your student status?
   Full-time (12+ hours)
   Part-time (1-11 hours)
9. Do you identify as any of the following (please mark all that apply)?
   Intercollegiate Athlete
   Sport Club Athlete
   Fraternity or Sorority Member
   Enrolled in UNI 101

YOU HAVE NOW COMPLETED OUR SURVEY. PLEASE RETURN IT TO THE
SURVEY PROCTOR.
THANK YOU FOR YOUR TIME!