A CROSS-SECTIONAL EXAMINATION OF DIFFERENTIAL SOCIAL SUPPORT FOR ALCOHOL USE WITHIN COLLEGE STUDENTS’ SOCIAL NETWORKS

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ABSTRACT

College drinking variables such as social networks and social support are frequently studied. However, to date, no studies have investigated the influence of alcohol specific social support (AS; i.e., for disapproval/approval of alcohol use) versus general social support (GS; e.g., friendship, advice) on alcohol consumption. The purpose of this study was to examine the effect that AS and GS have on alcohol consumption in college students’ social networks. Two hundred students (n = 99 male) answered anonymous surveys, including a Demographics Questionnaire, Quantity Frequency Index (QFI), Important People & Activities Survey (IPA), and Social Support Questionnaire (Short Form; SSQSR). Results indicated that alcohol specific support ($\beta = .38, p < .01$) and proportion of drinkers in an individual’s social network ($\beta = .29, p < .01$) significantly predicted frequency of alcohol use, and that alcohol specific social support ($\beta = .27, p < .05$) and proportion of drinkers in an individual’s social network ($\beta = .24, p < .01$) significantly predicted quantity of alcohol use among participants. These results supported the hypothesis that AS is a better predictor of drinking than GS. There were some unexpected findings, however, which warrant further investigation of the variables associated with college alcohol use.
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DEDICATION

I dedicate this thesis to my parents, Bruce and Marianne Pinsky. Without their continued support, emotional and financial, I would not be where I am today.
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INTRODUCTION

College alcohol use continues to be a top priority for researchers and public health officials. Excessive alcohol use among college students is not just a passing trend, or a problem of the new century. In fact, researchers have been studying alcohol use in college populations since the 1940s (Hecht, Grine, & Rothrock, 1948; Straus & Bacon, 1953). The attitude many students have toward drinking is largely responsible for this problem. College students often consider alcohol consumption to be a social practice and method used to make friends (Wetherill & Fromme, 2007). Furthermore, many regard partying and excessive drinking as a rite of passage (Butler, 1993; Crawford & Novak, 2006; Dorsey, Scherer, & Real, 1999; Glider, Midyett, Mills-Novoa, Johannessen, & Collins, 2001), which results in many students feeling comfortable about using alcohol frequently, and in large quantities.

Social norms often facilitate the practice of binge drinking and partying behaviors among college students (Baer, 1994; Dorsey et al., 1999). During their freshman year, students are actively forming new acquaintances and friendships, and often use alcohol in social situations as a social lubricant (Clifford, Edmundson, Koch, & Dodd, 1987). In one study, 87% of college males reported their main purpose for drinking was in order to bond with other males (Burda & Vaux, 1988). And for many students, the development and maintenance of alcohol use is significantly affected by peer alcohol use (Borsari & Carey, 2001).

For some, drinking may begin as a method of socialization; however, excessive social drinking can quickly develop into problem drinking. One study of over 12,000 university students found that 72% consumed alcohol at least once a year, and 20.6% were heavy drinkers; which is defined as consuming five or more drinks per occasion at least once a week (Engs, Diebold, & Hanson, 1996). Other studies mirror these high rates of binge drinking among
college students. A national study of over 25,000 college students revealed that 44% of the students met binge drinking criteria, which was defined as five or more drinks, for men, or four or more drinks, for women, at least once in the prior two weeks (Wechsler et al., 1995). The increased rate of binge drinking in the Wechsler et al. (1995) study is likely due, in part, to the criteria used for binge drinking. Wechsler and colleagues (1995) defined binge drinking as a pattern of alcohol use occurring over a two week-period, whereas Engs et al. (1996) used a one-week period. As indicated in these two prior studies, researchers commonly differ on their definitions of binge drinking.

In response to an inconsistent operational definition for heavy episodic or binge drinking, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) National Advisory Council approved the following definition: five or more drinks in males and four or more drinks in females, in about a two-hour period (NIAAA, 2007). Regardless of the methodological differences, the two studies described above present a clear example of the highly prevalent and pervasive nature of binge drinking in college populations.

More recently, another large national study found binge drinking rates for young adults ages 18 to 25 was 42.2 %, with the rate of binge alcohol use peaking between ages 21 to 23 (Substance Abuse and Mental Health Services Administration [SAMHSA], 2006). For college students aged 18 to 22, past month alcohol use occurred in 66.4 % of the sample, and binge drinking occurred in 45.5 % of the sample. Results of the annual survey also indicate that full time college students are more likely, than part-time and non-college students, to drink alcohol and to binge drink; however, regardless of whether these young adults are full time students or not students at all, this age group drinks larger quantities of alcohol and has more rates of binge drinking than any other (SAMHSA, 2006).
In a comprehensive integration of several surveys conducted in 2001, Hingson and colleagues (2005) found that college students aged 18 to 24 experienced 1,700 unintentional injury deaths, 2.8 million students reported driving while under the influence of alcohol, and nearly 600,000 were injured due to alcohol use. Thus there is no doubt that college drinking practices warrant significant cause for concern among college administrators, campus communities, law enforcement officers, and public health officials. Furthermore, because current approaches to control alcohol use and abuse are not successful, a different approach is needed (Butler, 1993).

**Social Networks**

Over the past 40 years, researchers have developed an interest in social networks; specifically how the formation and maintenance of friendships and networks occur (Hays, 1985; Hirsch, 1979; Reifman, Watson, & McCourt, 2006; Senchak, Leonard, & Green, 1998). The study of social networks (SN) began with an interest in the relation of SNs to the treatment of mental disorders, and their positive effects on mental health (Hirsch, 1979). Understanding that several risk factors exist for binge drinking among college students, one likely risk factor to consider is the individual’s SN (Reifman et al., 2006). Not surprisingly, a SN approach has been implemented within several academic disciplines, such as psychology and sociology, to help further understanding of college drinking variables (Reifman, 2004). SNs can be best conceptualized as “the set of all other with whom one has social interactions” (Hirsch, 1979). The definition of SNs may be narrowed further to include only those individuals who are presently significant, and with whom one has social interactions (Hirsch, 1979). I will use this definition to operationalize SNs for the present study.
The relation between alcohol use and SN composition is commonly understood as a combination of two overarching, mediating factors: social influence and social selection (Reifman et al., 2006). In order to understand these processes, it is important to first mention the common methodologies used to investigate SNs. Typically, researchers obtain information about an individual’s (or respondent’s) SN via self-report measures (Hays & Oxley, 1986).

Social influence, in the context of alcohol use, may be best described as the instance “in which alcohol use of network members precedes changes in the drinking of the target [respondent] to match that of the network.” Social selection is slightly different and is the situation in which “students enter college with certain drinking levels and seek out others with similar drinking levels to form a network” (Reifman et al., 2006). Several studies have found social selection to be a more significant predictor of drinking than social influence, and vice versa; however, college drinking is most likely mediated by both processes (Bullers, Cooper, & Russell, 2001).

Regardless of which processes most likely account for alcohol use in college populations, researchers agree that methodology issues are an issue of concern. Although they provide interesting data, cross-sectional, correlation studies do not offer much insight into the causal factors associated with drinking and SN variables. Thus, researchers have begun to investigate the development and change of SNs through longitudinal studies (Bullers et al., 2001; Reifman et al., 2006). Longitudinal studies offer much more information about the mediating processes of the respondent’s drinking behaviors, as a result of changes in his/her SN. A typical paradigm involves a three-wave study in which researchers can track the changes in the both respondents’ SN and his/her alcohol use.
Social Support

Because interest in SN research was initially motivated by its implications for mental health and recovery efforts, it is not surprising that the notion of social support is also an important focus in the field of SN research. Many argue that a primary function of SNs is to provide social support for the respondent. As a result, researchers have grown interested in how SNs influence an individuals’ behavior, and numerous literature reviews have identified the relation between social support with physical and psychological illness (Barrera, 1986).

Although it is well studied, an emerging problem in the literature is the failure of researchers to use a consistent definition of social support. According to Barrera (1986), social support concepts can be organized into three categories: social embeddedness, perceived social support, and enacted support. Social embeddedness “refers to the connections that individuals have to significant others in their social environments”. Perceived social support “characterizes social support as the cognitive appraisal of being reliably connected to others,” and may be separated into two dimensions: perceived availability and adequacy of supportive ties. Lastly, enacted support may be defined as “actions that others perform when they render assistance to a focal person [respondent]” (Barrera, 1986). Several measures have been developed over the years to assess these various forms of social support, and have yielded interesting findings regarding the relation of social support and drinking.

Continued work examining the mechanisms of social support is still necessary. In a large literature review, Barrera (1986) discussed studies in which social support is positively/negatively related to stress, as well as studies in which social support is positively/negatively related to distress. Barrera (1986) found the largest number of studies
indicating social support is negatively related to distress; however, the direction of these correlations must be further investigated.

**General vs. Alcoholic Specific Social Support**

As mentioned earlier, there are several distinct types of social support. Many studies have examined the effects of social support in relation to healthy and unhealthy behaviors (Cobb, 1976; Chronister, Johnson, & Berven, 2006; Cohen & Wills, 1985; Havassy et al., 1991). In regard to the present study on alcohol use among college populations, it is important to examine previous studies of SNs among alcoholics receiving treatment.

Early studies focused on the importance social support networks might have on predicting recovery from alcoholism (Finney, Moos, Mewborn, 1980; Heinemann, Moore, & Gurel, 1976; Moberg, Krause, & Klein, 1982). As research began to suggest that social support helped reduce alcohol use and potentially buffer against relapse, researchers became focused on distinguishing between general social support and social support specific for abstinence (Havassy et al., 1991; Longabaugh et al., 1993). These studies of alcoholics were some of the first to investigate the impact of general and specific social support, and what effect this had on an alcoholic’s ability to recover more successfully.

Longabaugh and colleagues (1993) defined two types of social support that are important in regard to influencing recovery in alcoholics: social support of psychological functioning (general social support; GS) and alcohol specific social support (AS). General support is “the support the person’s social environment provides for maintaining and strengthening psychologically healthy behaviors,” whereas AS is “expressed in behaviors by others in the individual’s environment that stimulate and/or reinforce alcohol consumption or abstinence” (Longabaugh et al., 1993). General support can be classified as social support that one
experiences in everyday life, such as friendship, advice, and encouragement. Alcohol-specific support is support (i.e., a network members’ approval or disapproval of the respondent’s drinking) that directly affects the drinking habits of the respondent. For example, although a friend may provide positive GS (e.g., easy to talk to, enjoys similar activities, is trustworthy), that friend may simultaneously provide poor AS (e.g., encouraging excessive drinking for an individual who is a recovering alcoholic). In this situation, AS would likely have a greater influence on the individual’s drinking behavior, potentially inducing relapse in the recovering alcoholic.

Although these two types of social support are conceptually independent of one another, researchers recognize that they are most likely correlated to a large degree (Longabaugh et al., 1993). This independent conceptualization of social support constructs permits researchers to examine specific variables that may influence alcohol use. Even if network members successfully provide many supportive functions (e.g., conversation, participation in social events), they may be unaware of the struggles recovering addicts, such as cessation and maintenance. Furthermore, network members may use the problem substance themselves, thus increasing the likelihood of relapse in the respondent (Havassy et al., 1991). More generally, although an individual receives sufficient levels of GS, high levels AS for drinking may adversely affect alcohol use. It is thus necessary to separate social support into independent constructs in order to measure the influence attributed to each type of support.

Research suggests that, when compared to GS, AS more consistently predicts treatment outcomes for recovering alcoholics (Beattie & Longabaugh, 1999). However, research results have been mixed. Zywiak and colleagues (2002) found that support for drinking from important network members is not related to drinking outcomes in a study of alcoholics following
treatment. Conversely, Beattie and Longabaugh (1999) found that abstinence rates were strongly correlated with AS, and that the correlation was even stronger when there were high levels of GS. This suggests that AS is not as helpful in improving drinking behavior when there is a lack of concurrent GS (Beattie & Longabaugh, 1999). There is evidence suggesting that a similar process occurs in college students. One study found that college students who received less social support from their friends drank more heavily during the week following a period of greater hostility or sadness that previous weekend (Hussong, et al., 2001).

The notion of positive and negative social support is also apparent in substance dependent individuals. Partner support for abstinence (for alcohol, opiates, and cigarettes) predicted less relapse, whereas general social support (emotional, instrumental, and negative) did not. Moreover, when network members used the participants’ drug of abuse, this predicted an increased risk of relapse (Havassy et al., 1991). In another study, Falking and Strauss (2003) found that substance-using women in recovery often received constructive social support as well as support from individuals that enables their drug use. Again, it appears that social support may be divided into general and support for alcohol/other drug health. There is clearly a need to identify the different types of support that individuals receive from network members, as well as to determine in what direction support moderates the use of that substance.

Present Study

Given the significant presence of college student alcohol use and misuse, and the consequences that may result for the student and other individuals, it is vital to understand any and all factors that may influence alcohol use. Furthermore, these trends in alcohol use make college students an important subpopulation of interest for alcohol researchers, in contrast to
prior use of college populations as a convenience sample (Slutske et al., 2004). Although social support is one factor that has received much attention in relation to alcohol use, GS and AS have yet to be examined within college student populations. General support and AS have been mainly implicated in treatment outcome studies in clinical populations, but it is highly likely that GS and AS have an influence on alcohol use in non-clinical populations, and must be further investigated. The current study gathered valuable information regarding differential types of social support in a college sample.

Demographic data

I expected a majority of participants to be first-term freshman, and that most of the sample would reside on campus in dormitories, with a small portion living in off-campus housing not affiliated with the university. I predicted that a small minority of students would live off-campus with their parents/other family members. Given the demographics of the university, I predicted no significant differences in age, sex, or ethnicity among students living in dormitories. However, some demographic differences were expected to occur between students residing on-campus versus off-campus. The sample was not expected to be ethnically diverse, due to lack of diversity in the campus population.

I predicted that very few participants would score as problem drinkers on any questionnaires, although there may be significant gender differences in quantity of alcohol use, such that men drink significantly more alcohol than women.

Convergent validity of measurements

I also expected measurements of social support to have strong convergent validity with one another. Although I did not collect ample data to conduct a factor analysis, correlations among
specific items on the SN instrument used will foster the development of appropriate indices for future use.

**Hypotheses**

I hypothesized that differential social support is a large predictor of drinking behavior such that AS relates to the respondent’s alcohol use more so than GS. I hypothesized that lower scores on a measure of AS, indicating lower approval of alcohol use, would predict lower levels of alcohol use in both quantity and frequency. Contrastingly, higher AS scores, indicating greater approval of alcohol use, would predict higher levels of alcohol use in both quantity and frequency. Consistent with previous research in clinical populations (Beattie & Longabaugh, 1999; Havassy et al., 1991; Longabaugh et al., 1993; Zywiak et al., 2002), I hypothesized that AS is a better predictor of alcohol use, suggesting that GS in college students’ SNs does not have a significant influence on alcohol use.

I hypothesized that a greater proportion of drinkers in the network would predict more frequent, and greater quantity of, drinking. Many other studies have found a positive correlation between the proportion of drinkers in the respondent’s network with the respondent’s own drinking (Burda & Vaux, 1988; Cherry, 1987; Fondacaro & Heller, 1983; Harford et al., 1983; Perkins & Berkowitz, 1986; Rosenbluth et al., 1978; Sherry & Stolberg, 1987). Conversely, Zywiak et al. (2002) found that network with a greater percentage of abstainers and recovering alcoholics have the best prognosis upon finishing treatment. Zywiak et al. (2002) also found that patients with larger daily networks have a better prognosis when considering posttreatment percentage of days abstinent and monthly volume of consumption for several months following treatment.
I hypothesized that the number of men versus women and number of family elders (e.g., parents, grandparents) in the SN, and location of residence (e.g., on-campus/off-campus) of network members would significantly predict the respondent’s drinking behavior. Based on previous research (Senchak et al., 1998), I hypothesized that respondents with a higher proportion of males in their SN would show increased quantity/frequency of alcohol use. I hypothesized that a greater number of family elders (based on findings from Reifman et al., 2006), would predict lower quantity/frequency of alcohol use. I also expected location of residence to be a significant predictor; however, did not indicate in which direction it would affect alcohol use.

Although I expected all of the above variables to predict some level of alcohol use, my main research hypothesis stated that, because AS is more specific to alcohol use, AS would predict quantity of alcohol use and frequency of use with greater accuracy than GS.

**Development of the Important People & Activities Survey**

Common research methodology used to investigate SNs uses a grid format in which the respondent lists some number of network members (Hays & Oxley, 1986; Hirsch, 1980; Reifman et al., 2006). Clifford et al. (1992) developed the Important People & Activities (IPA), a grid format inventory, in order to examine SNs within an alcoholic population. The IPA is an inventory that assesses SN support for drinking. This inventory is normally administered via structured clinical interview, and takes approximately 20-30 minutes to complete (Longabaugh et al., 1998). Previously, the IPA has been used only in clinical populations in treatment outcome studies for alcoholics (Longabaugh et al., 1993; Zywiak et al., 2002). Because I am interested in studying a non-clinical population, I adapted the IPA to measure SN support for drinking among college students.
The version of the IPA (Clifford, 1992) used in this study was divided into two distinct parts: important people and important activities. Overall, each section of the IPA aims to accurately represent those network members who are most important to the respondent, as well as to identify which activities are most important to the respondent. The respondent is also asked several questions to indicate how network members feel about his/her drinking, as well as how often alcohol is present during important activities.

In a factor analysis of the Important People (IP) portion of the IPA, Groh and colleagues (2007) recommended three future directions for continued development of the IPA: reduction of number of questions for the IP, changing the format from structured clinical interview to self-report, and adapting the IP to be administered via computer, all of which will save time for the participant. Following these recommendations (Groh et al., 2007), rather than a structured clinical interview, participants completed a self-report format of the IPA. I modified questions to accurately assess alcohol use in college student populations, while omitting those questions only applicable to a clinical population. For several reasons, I did not develop a computer-based version of the IPA. This will be addressed later in the discussion section.

I expected this modified format to reduce administration time, while facilitating an easier method for data collection. Although the IPA has not been validated in non-clinical samples, it has received considerable support for use in alcoholic populations (Del Boca et al., 1995; Longabaugh et al., 1993; Longabaugh et al., 1995; Longabaugh et al., 1998); thus it is likely that it should have some applicability to excessive drinkers in college.
Modifications to the IPA

Important People

The important people section of this inventory has participants identify important network members with whom they have been in frequent contact with in the past six months (Groh et al., 2007). Because many of the participants in this study were first-semester freshman, I reduced the time interval from six-to three-months in order to capture a more accurate representation of SN functioning. It was less important to focus as much on several months before participants began their fall semester; therefore, I expected a three-month time interval would help focus the measure of participants’ SNs mostly to those developed within the first months of college.

Participants were asked to identify a minimum of six and maximum of 12 network members that were at least 12 years old, with whom they had spent the most time with in the past three months. Although the IPA administration manual does not state a minimum number of network members, it does encourage the interviewer to elicit information for at least four network members (Clifford & Longabaugh, 1991). In previous research, participants reported a mean of six to nine network members (Hays & Oxley, 1986), and are often asked to report eight (Reifman et al., 2006). In pilot work (Pinsky & Noel, unpublished), I asked for a minimum of four network members to be reported on the IPA. Almost half of the 64 participants (45.31%) listed six network members or less (M = 7.36, SD = 2.17). Anecdotally, it seems that most college students have many important network members during their freshman year; therefore, I wanted to increase the minimum number for reporting to six, to obtain a better measure of the participants’ SN. Even though I set the minimum at six, there were participants who listed less than six network members (see Discussion).
Because the IPA was developed almost two decades ago, I modified the definition of “spending time” with a person to include the following: in-person activities (e.g., face-to-face conversation, going out to eat), telephone, email, instant messaging, and snail mail. I added several demographic questions to the modified version of the IPA used in the current study. These additions included age, ethnicity, importance of religion, method of contact, residence location, year in school, level of emotional support, level of advice, frequency of studying, frequency of socialization, last activity completed with respondent, and most common activities with respondent. Participants were asked yes or no questions for whether network members were students, and if they were in a Greek-letter organization.

**Important Activities**

The final section of the IPA asked participants to indicate which activities they spent the most time doing in the past three months. These activities may or may not be liked by the participant. I expected a college population to have a more diverse range of activities than a clinical population. Therefore, I provided space for participants to list up to six important activities, rather than a maximum of four in the original version of the IPA. I also included two additional questions. Participants indicated, if applicable, which important person or people spent time with them during each important activity listed, as well as how often the important person or people spent time with the participant during the specified activity.

**Scoring the IPA**

The IPA has been used among large samples of alcoholics, and is thus scored using these large samples as a population. The data generated from the IPA are analyzed to yield a measure for alcohol involvement versus abstinence for AS (Longabaugh et al., 1993). This is measured by
eleven individual indices that are computed to form two composite indices: investment in the identified network and support for drinking.

**Investment in the identified network**

This composite index is computed from two sections of the IPA: the respondent’s description of the four most in people in their network, in addition to that of the entire network. The investment composite index is derived from scores in the following indices: number of people in the network, amount of contact with the network, and average importance the most important people in the network (Longabaugh et al., 1998).

**Support for drinking**

This composite index is also computed from two sections of the IPA: the respondent’s description of their own drinking behavior and that of their entire network, in addition to their most important people’s reactions to their drinking. The support for drinking composite index is derived from scores in the following indices: drinking status of network members, frequency of drinking among network members, maximum drinking per day by network members, percentage of heavy drinkers in network, percentage of abstainers and recovering alcoholics in network, highest support for drinking among most important people, lowest support for drinking among most important people, and average support for drinking among most important people (Longabaugh et al., 1998).

**Modified scoring**

Because I adapted the IPA for use in a non-clinical population, I made several modifications in scoring the IPA. I will discuss scoring the adapted version of the IPA in the methods section, and justifications in the discussion section.
**Pilot Study**

In addition to influencing several formatting changes to the IPA, listed above, pilot work (Pinsky & Noel, unpublished) also provided important qualitative information about pragmatic practices for IPA administration. During the pilot study, I conducted experimental sessions of six participants or less per session. In order to collect data from 200 participants in a reasonable time frame (i.e., one semester), I opted to run experimental sessions in classrooms. Conducting sessions in classrooms provided several advantages, and effectively addressed several concerns noted during the pilot study.

1.) In the pilot study, participants completed questionnaire packets in a small lab space. I noticed some participants would begin socializing with one another during the survey administration. Second, I was concerned about the perception of a low level of privacy for some participants, due to space limitations. Third, participants completed questionnaires on clipboards. They often complained about needing more desk space to complete the questionnaires. Although the lab space was convenient, it did not offer the appropriate environment for administration of these questionnaires.

2.) Although I made revisions to the administration of the IPA, the directions were lengthy and often confused participants. In order to address this issue, I developed a Power Point presentation that provides clear and detailed directions for completing the IPA, as well as other study questionnaires (see Appendix F).

3.) An added benefit to using the Power Point presentation addressed another very significant problem. During the pilot study, participants were given instructions at the beginning of the study session and then asked to begin, leaving them free to complete the questionnaire packet at their own pace. Inevitably, some participants finished well before others, with many
instances in which participants finished very quickly, and often left portions of the questionnaires blank.

To solve this problem in the present study, participants were asked to follow the Power Point instructions, which explicitly stated that participants would complete questionnaires one at a time, and were asked to wait until all participants finished the current questionnaire before beginning the next. Details provided in the method section.

Method

Participants

Participants consisted of 101 females and 99 males between 17 and 31 years old (M = 18.69, SD = 1.63) from a mid-size southeastern university. The majority of participants were Caucasian (78.5 %, n = 157), and the remaining participants self-reported their ethnicity as African American (5.5 %, n = 11), and Hispanic, Asian or Other (12.5 %, n = 25). Seven participants (3.5 %) did not indicate their ethnicity. The majority of participants were college freshman (74.5 %, n = 149), although other years in college were represented: sophomore (15.0 %, n = 30), junior (6.5 %, n = 13), senior (4.0 %, n = 8). Most participants were single (67.0 %, n = 134) or in a steady dating situation (32.0 %, n = 64). Participants mostly lived on campus, in residence halls (65.0 %, n = 130), off-campus apartments (14.5 %, n = 29), or in on-campus apartments (14.0 %, n = 28). The majority of participants were not in Greek-letter organizations (87.0 %, n = 174). Over half of participants (55.0 %, n = 110) did not identify with any religion (see Table 1 for more demographic information). Missing data on the demographic questionnaire yielded sample sizes between 183 and 200 participants.
Demographic information

Table 1 shows the demographic information of the participants, including percent of sample and number.
Table 1. Demographic information, including percent of sample and number.

<table>
<thead>
<tr>
<th>Item</th>
<th>% of sample</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>78.5</td>
<td>157</td>
</tr>
<tr>
<td>African Am.</td>
<td>5.5</td>
<td>11</td>
</tr>
<tr>
<td>Hispanic Am.</td>
<td>2.0</td>
<td>4</td>
</tr>
<tr>
<td>Asian Am.</td>
<td>1.5</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>9.0</td>
<td>18</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>74.5</td>
<td>149</td>
</tr>
<tr>
<td>Sophomore</td>
<td>15.0</td>
<td>30</td>
</tr>
<tr>
<td>Junior</td>
<td>6.5</td>
<td>13</td>
</tr>
<tr>
<td>Senior</td>
<td>4.0</td>
<td>8</td>
</tr>
<tr>
<td><strong>Employment</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FT Student</td>
<td>74.0</td>
<td>148</td>
</tr>
<tr>
<td>PT Student</td>
<td>18.0</td>
<td>36</td>
</tr>
<tr>
<td>Unemployed</td>
<td>2.5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Marital</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>67.0</td>
<td>134</td>
</tr>
<tr>
<td>Dating</td>
<td>32.0</td>
<td>64</td>
</tr>
<tr>
<td><strong>Sexual Orientation</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual</td>
<td>90.5</td>
<td>181</td>
</tr>
<tr>
<td>Homosexual</td>
<td>8.0</td>
<td>16</td>
</tr>
<tr>
<td><strong>Practice Religion</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>55.0</td>
<td>110</td>
</tr>
<tr>
<td><strong>Greek-letter org.</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>87.0</td>
<td>174</td>
</tr>
<tr>
<td><strong>School athlete</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>85.0</td>
<td>170</td>
</tr>
<tr>
<td><strong>Campus activities</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>60.0</td>
<td>120</td>
</tr>
</tbody>
</table>

*Missing values: Employment (11), sexual orientation (3), religion (1), Greek (1), athlete (1), activities (1)
Notes: Heterosexual is reporting those individuals who are exclusively heterosexual (homosexual includes any individual on Kinsey scale who did not mark heterosexual; Unemployed = no work, no school; Martial = 2 participants married (1% of sample)
**Drinking Status**

Over half of participants (54.0 %, n = 108) were moderate drinkers, followed by light drinkers (24.0 %, n = 48), and fewer heavy drinkers (6.5 %, n = 13). Thirty participants (15.0 %) were self-reported abstainers.

**Drinking Frequency**

Most participants drank one or two times a week (38.5 %, n = 77), about every other week (18.5 %, n = 37), or three to six times a week (14.5 %, n = 29).

**Drinking quantity**

Most participants indicated that the most they drank in a single day was six to nine drinks (34.5 %, n = 69), three to five drinks (28.5 %, n = 57), or one to two drinks (11.0 %, n = 22). Excessive drinking was reported: twenty-seven participants (13.5 %) reported drinking ten or more drinks as the most they drank in a single day. Twenty-four participants (12.0 %) were self-reported abstainers (see Table 2).
Self-reported drinking behavior

Table 2 shows the drinking status, quantity, and frequency of drinking, including percent of sample and number of total sample, as reported on the demographic questionnaire.
Table 2. Self-reported drinking. Type of drinker, frequency and quantity of drinking.

<table>
<thead>
<tr>
<th>Item</th>
<th>% of sample</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drinker type</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy</td>
<td>6.5</td>
<td>13</td>
</tr>
<tr>
<td>Moderate</td>
<td>54.0</td>
<td>108</td>
</tr>
<tr>
<td>Light</td>
<td>24.0</td>
<td>48</td>
</tr>
<tr>
<td>Abstainer</td>
<td>15.0</td>
<td>30</td>
</tr>
<tr>
<td><strong>Frequency</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 to 6 times/wk</td>
<td>14.5</td>
<td>29</td>
</tr>
<tr>
<td>1 to 2 times/wk</td>
<td>38.5</td>
<td>77</td>
</tr>
<tr>
<td>Every other wk</td>
<td>18.5</td>
<td>37</td>
</tr>
<tr>
<td>Once a month</td>
<td>7.5</td>
<td>15</td>
</tr>
<tr>
<td>Less than monthly</td>
<td>4.5</td>
<td>9</td>
</tr>
<tr>
<td>Once in last ½ yr</td>
<td>4.5</td>
<td>9</td>
</tr>
<tr>
<td>Not in last ½ yr</td>
<td>11.0</td>
<td>22</td>
</tr>
<tr>
<td><strong>Quantity (maximum)</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 or more drinks</td>
<td>13.5</td>
<td>29</td>
</tr>
<tr>
<td>6 to 9 drinks</td>
<td>34.5</td>
<td>69</td>
</tr>
<tr>
<td>3 to 5 drinks</td>
<td>28.5</td>
<td>57</td>
</tr>
<tr>
<td>1 to 2 drinks</td>
<td>11.0</td>
<td>22</td>
</tr>
<tr>
<td>Does not drink</td>
<td>12.0</td>
<td>24</td>
</tr>
</tbody>
</table>

*Missing one value for each response: Drinker type, frequency, and quantity
Recruitment methods

Participants were selected from a convenience sample of introductory Psychology students. All participants were recruited, and enrolled, via an online system in the Psychology Department (Experimental Management System; EMS; Sona Systems, Ltd., 2008). Participants received partial credit toward completion of research requirements for their psychology course. Initially, most study participants signing up were females. To obtain equal numbers of male and female participants, I restricted the study participation requirements to males only, once 101 females had completed the study.

Materials

Informed Consent

All participants were presented with, and asked to read, an informed consent document. Because the surveys were anonymous, and the risk to participants was low, participants were not required to sign the informed consent document. However, participants were asked to keep the informed consent for their records (e.g., experimenter contact information provided; see Appendix A).

Demographic Information

All participants were asked to report their age, current dating or marital status, sexual orientation, educational status, employment status, ethnicity, religious status, and location of residence/number of other individuals living in his/her dwelling. Participants indicated whether they were members of a Greek-letter organization, an athletic team, and/or other campus societies, as well as their approximate GPA. Participants self-reported their drinking status, frequency of alcohol consumption, and the most number of drinks consumed in a single day (see Appendix B).
Quantity-Frequency Index (QFI)

The QFI (Cahalan, Cisin, & Crossley, 1969) is a well-known alcohol consumption index that is consistently shown to be a valid and reliable measure of alcohol consumption in non-clinical samples, including college students (O’Hare, Cohen, & Sherrer, 1997). Participants estimate how often they usually drink and how many drinks they have in one sitting. This data can help one define light, moderate, and heavy drinking, where heavy drinking is often defined as consuming five or more drinks in one sitting, at least once per week. The QFI has a high predictive value, such that students who score as heavy drinkers often have a drinking problem (O’Hare et al., 1997).

The QFI asks participants to answer questions about their use of alcohol and other psychoactive substances. All questions pertained to use in the past three months. First, participants indicated their frequency of alcohol use (e.g., *How many days would you estimate that you drank at least one alcoholic beverage?; between 1 – 90 days*). Participants also indicated the type (e.g., *beer, wine, liquor*), frequency (e.g., *almost everyday to never*), and quantity (e.g., *17 or more standard drinks – of beer, wine, or liquor – to never drinking*). A standard drink is defined as 12 oz. beer, 5 oz. wine, or 1.5 oz. of liquor.

Participants also indicated their other recreational substance use (e.g., caffeine, marijuana, benzodiazepines; *0 = Never to 6 = Almost everyday*). Other questions assessed whether participants have experienced any negative consequences due to their alcohol or substance use (e.g., blackouts, withdrawal symptoms, treatment for alcohol or drug problems, family members with alcohol or drug problems).

The total days reported drinking (in the past 90; a measure of frequency) were examined and three scores (i.e., beer, wine, liquor) were averaged to represent the average quantity of
alcohol consumption. Higher scores for total days drinking, and/or endorsement of previous negative alcohol – or drug-related consequences indicated a potential problem with alcohol or drug use. Higher scores on the quantity index indicated a potential problem with quantity of alcohol use per drinking session. Note: I recoded the responses to eliminate confusion with reverse scoring of quantity index (see Appendix C).

*Important People & Activities*

The version of the IPA (Clifford et al., 1992) used in this study was divided into two distinct parts: important people and important activities. As mentioned above, the IPA aims to accurately represent those network members who are most important to the participant, as well as to identify which activities are most important to the participant. Lastly, the IPA assesses how important network members feel about the participant’s drinking, in addition to how often alcohol use is present during important activities.

*Demographics and Relationship*

For each network member listed, participants were asked about the following: relationship to the person, gender, age, ethnicity, importance of religion, months/years known, amount/method of contact, drinking status/frequency/quantity, student status, location of residence, membership in Greek-letter organizations, year in school, amount of emotional support/advice provided to participant (adopted from a social support measure, see below), last activity completed - as well as most common activities completed with participant, and how often the network member studies/socializes with participant.

*Important People*

Participants were asked to consider the four people that were most important to them in the last three months. Important people are defined as those “people who have had an impact of your
[the participant’s] life, whether you [participant] liked them or not” (Clifford et al., 1992).

Participants rated how much they liked each important person, how important each person was to them, and how each important person felt about the participant’s alcohol consumption.

**Important Activities**

Participants indicated which activities (up to six) they spent the most time doing in the past three months. These activities may or may not be liked by the participant (e.g. work, school, chores). After listing each activity, participants were asked the following: whether the activity is school/work related, for pay/not for pay, how many hours spent each week on the activity, how important the activity was and how much the participant liked the activity, frequency of alcohol use during this activity for self and others, which important people participated in the activity, and the frequency in which important people participated in the activity with the participant.

**Modified Scoring**

For the purposes of this study, the IPA was used to provide important demographic information about network members, and to measure AS. To obtain an AS composite score, I first isolated the four most important people in a participant’s SN. Second, I created the AS composite score by multiplying the network member’s level of importance to the participant (e.g., 1 = totally disliked and 7 = totally liked) with how the network member felt about the participant’s drinking (e.g., 0 = discouraged from drinking at all and 4 = encouraged me to drink more; 5 = don’t know). For scoring purposes, don’t know responses were recoded to neutral, and all responses were recoded to prevent from multiplying by zero.

Once a raw AS score was computed for each of the four important people in a participant’s SN, I averaged the sum of the four raw AS scores to yield the AS composite score. Two
participants did not list all four important network members. Their responses were excluded from data analyses.

*Social Support Questionnaire (Short Form; SSQSR).*

The Social Support Questionnaire (Sarason et al., 1983) measures the respondent’s perceived number of network members providing social support, and level of satisfaction with available social support. Due to time constraints, I used the brief version (SSQSR; Sarason et al., 1987), which is an often used and well-validated measure of social support. Furthermore, the questions in the brief version are more general in nature, which was more suitable for a college population (example question below).

The SSQSR is a 6-item two-part questionnaire: part one asked participants how many people provide a certain type of social support (e.g., *Who can you really count on to be dependable when you need help?*); part two asked participants to rate their overall satisfaction with the social support (*1 = very dissatisfied; 6 = very satisfied*). For part one, participants could list zero to nine individuals who provided them with social support. Because participants were able to list up to 12 network members in the current study, I amended the SSQSR so that participants could list zero to 12 individuals.

The SSQSR yields two scores: SSQ Number Score (SSQN) and SSQ Satisfaction Score (SSQS). SSQN is obtained by adding the total number of people who provide social support to the participant (Max. = 72), divided by six. SSQS is obtained by adding the total number of satisfaction scores (Max. = 36), divided by six.

Because of the robust nature of the SSQSR, I used this measure to compute the GS for participants. SSQN was difficult to incorporate into an overall measure of social support,
therefore I excluded SSQN responses, and only used SSQS to represent GS in regression analyses (see Appendix E).

**Procedure**

Participants signed up for a scheduled time and date to fill out questionnaires. Experimental sessions were conducted in classrooms, equipped with a computer and projector. No more than 20 participants were scheduled at one time.

After entering the classroom, participants were greeted by the experimenter and asked to present a photo ID for verification. Participants were asked to review an informed consent document on their desks. The informed consent statement was displayed on the projector, and was read aloud by the experimenter. Before consenting to participate, all questions were answered accordingly. All procedures were approved by the University of North Carolina Wilmington Institutional Review Board.

Following consent, participants were informed that they would complete a series of anonymous questionnaires, and asked to be as accurate as possible when responding. To ensure anonymity, participants were asked to not provide any self-identifying information on the questionnaires (e.g., name).

Due to adaptations in the IPA administration format (see Introduction), I concluded that it was most advantageous to have participants view PowerPoint instructions to complete the questionnaires (see Appendix F). This procedure required participants to complete one questionnaire at a time. Instructions for each questionnaire were presented via projector. Participants were asked to place their completed questionnaire in an envelope on their desk, and to wait patiently for instructions from the experimenter, before beginning the next questionnaire.
This instruction process controlled for participants rushing through the questionnaires, as well as allowing up to 20 participants to view questionnaire instructions simultaneously.

The questionnaire packet included the Demographic Information Sheet, the Quantity Frequency Index (QFI), Important People & Activities Survey (IPA), and the Social Support Questionnaire (Short Form; SSQSR).

Upon completion of the questionnaires, participants were thanked for their participation, given class credit, and released.

Results

Descriptive data

Convergent validity of SSQSR with IPA

I expected the SSQSR responses to be significantly correlated with IPA social support indices. The first index, “emotion,” is an average of how much participants could count on their network members for emotional support. The second index, “advice,” is an average of how much participants could count on their network members for advice (see Appendix F, questions 6b/7b.). Although results indicated that SSQSR responses were significantly correlated with both emotion, \( r (193) = .21, p < .01 \), and advice, \( r (193) = .18, p < .05 \), they were small correlations. In an exploratory analysis, I combined and averaged emotion and advice scores to examine the possibility of an increased association with SSQSR scores; however, no marked increase in association occurred, \( r (193) = .23, p < .01 \).

I did not predict any large differences among SSQSR scores. Results indicated that there were no large differences, with most participants (86.0 %, \( n = 172 \)) reporting an average SSQSR score greater than or equal to five, on a Likert scale of one to six (\( M = 5.49, SD = .66 \)).
**Drinking frequency**

Drinking frequency was assessed by the QFI as the number of days drinking in the past 90 days. Several modes, with frequency greater than 10, were reported for days drinking in the past 90 days: 10 (f = 14, 7.0 %), 15 (f = 12, 6.0 %), 20 (f = 22, 11.0 %), 25 (f = 24, 12.0 %), and 30 (f = 14, 7.0 %). These five modes accounted for 43.0 % of the sample. Given that almost a fifth of participants (16 %, n = 32) did not report their drinking frequency - most did not consume alcohol in the past three months - these five modes accounted for 51.1 % of those participants reporting their drinking frequency in the past three months. Participants ranged from one day to 80 days of drinking reported over the past three months.

Correlation analyses indicate that the demographic questionnaire and QFI frequency (days drinking responses) demonstrated a significant and high level of association, r (165) = .69, p < .01. These results suggest that participants who indicated a high frequency of alcohol consumption on one questionnaire, indicated a high frequency on the other. A series of QFI questions asked about alcohol and other drug use. Correlation analyses indicate that demographic questionnaire alcohol frequency questions are also significant and highly correlated with this QFI questions, r (169) = .79, p < .01. These findings further support the notion that participants were responding consistently. A related analysis served as a validity check within the QFI, demonstrating a strong association between two different frequency of alcohol use questions (days drinking and alcohol/other drug use responses), r (166) = .71, p < .01.

**Drinking quantity**

Drinking quantity was assessed by the QFI as an average amount of alcohol (i.e., beer, wine, and hard liquor) consumed on days that the participant drank. Higher scores indicate a higher quantity of alcohol consumption (see Appendix C; note: scores were recoded to eliminate
reverse-scoring). Similar to drinking frequency, several modes with frequency greater than 10 were reported for the following average alcohol consumption responses: 3.67 ($f = 21, 10.5\%$), 3.33 ($f = 25, 12.5\%$), 3.00 ($f = 16, 8.0\%$), 2.67 ($f = 32, 16.0\%$), 2.33 ($f = 29, 14.5\%$), and 2.00 ($f = 17, 8.5\%$). These six modes accounted for 70.0\% of the sample. Fourteen percent ($n = 28$) of participants did not report their drinking quantity - mostly because they did not consume alcohol in the past three months - therefore, these six modes accounted for 81.4\% of those participants reporting their drinking quantity in the past three months. Participants’ responses ranged from 1.33 to 6.00 in reporting their quantity consumed over the past three months. To interpret these data, I rounded the scores to the nearest whole number. Of those participants who responded to drinking quantity questions, answering how many drinks on average they consumed on days when drinking: seven (4.1\%) reported drinking more than eight drinks per day, twenty-nine (16.9\%) reported drinking five to seven drinks per day, seventy-three (42.4\%) reported drinking three to four drinks per day, fifty-five (32.0\%) reported drinking one to two drinks per day, and eight (4.7\%) reported little to no consumption.

Correlation analyses indicate that the demographic questionnaire and QFI alcohol quantity questions demonstrated a significant and high level of association, $r (169) = .67, p < .01$. This suggests that participants indicating a high quantity of alcohol consumption on one questionnaire indicate high quantities on the other.

**Correlations**

Correlation analyses indicate that QFI alcohol frequency is significantly correlated with proportion of drinkers in SNs, $r (166) = .27, p < .01$. Also, QFI average amount was significantly correlated with proportion of drinkers in SNs, $r (170) = .27, p < .01$. This association suggests a
positive relationship between quantity of alcohol use and proportion of drinkers in SNs. Both correlations were consistent with my hypotheses (see Table 3 for more correlations).
Correlation analyses

Table 3 shows the associations between responses on the QFI with responses on the demographic questionnaire. Pearson correlation coefficients and p values shown.
Table 3. Correlations between QFI and demographic questionnaire

<table>
<thead>
<tr>
<th>Demographic questionnaire</th>
<th>Freq.</th>
<th>Quantity</th>
<th>Drinking status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days drinking</td>
<td>.69</td>
<td>.54</td>
<td>.61</td>
</tr>
<tr>
<td>(n = 167)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avg. amount</td>
<td>.57</td>
<td>.67</td>
<td>.58</td>
</tr>
<tr>
<td>(n = 171)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol use</td>
<td>.79</td>
<td>.52</td>
<td>.63</td>
</tr>
<tr>
<td>(n = 171)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drinker</td>
<td>.58</td>
<td>.55</td>
<td>.51</td>
</tr>
<tr>
<td>(n = 198)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drink in last 3 months</td>
<td>.77</td>
<td>.69</td>
<td>.66</td>
</tr>
<tr>
<td>(n = 198)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: All correlations significant at p < .01 level
Differences between high, low, and infrequent drinkers

To examine differences in SN composition based on self-reported drinking frequency and quantity, I conducted a series of one-way Analyses of Variance (ANOVAs) for each of the predictor variables for the hierarchical regression analyses (reported below). I assigned participants to one of three groups based on their reported drinking frequency and average quantity, as reported on the QFI. Participants who drank in the last 90 days were divided into high and low drinkers by conducting a median split for frequency and quantity. Those participants who indicated they did not drink in the last three months or who were self-reported abstainers, were defined as infrequent drinkers. I combined both infrequent drinkers (n = 13) with abstainers (n = 15), due to small group sizes. Note: four participants (3 males, 1 female) who consumed alcohol in the last 90 days were excluded from this analysis because they did not report number of days drinking.

ANOVA were conducted to assess any differences between infrequent, low, and high drinkers, using either the QFI drinking frequency (days drinking) responses or QFI drinking quantity (amount average) responses as the independent variables. Means and standard deviations presented in Table 4.

Drinking frequency

A one-way ANOVA of proportion of drinkers in SNs yielded significant differences between groups, F (2,193) = 47.48, p < .01. Post hoc comparisons using the Tukey’s HSD test revealed that infrequent drinkers had a significantly lower proportion of drinkers in their SNs than low-frequency drinkers or high-frequency drinkers. Tukey’s HSD test also revealed that low-frequency drinkers had significantly lower proportion of drinkers in their SNs than high-frequency drinkers.
A one-way ANOVA of AS also yielded significant differences between groups, $F (2, 191) = 37.40, p < .01$. Tukey’s HSD test revealed infrequent drinkers had a lower level of AS than low-frequency drinkers or high-frequency drinkers, and that low-frequency drinkers had a lower level of AS than high-frequency drinkers.

A one-way ANOVA of proportion of males yielded significant differences between groups, $F (2, 193) = 3.01, p < .05$. Tukey’s HSD test revealed infrequent drinkers had a lower proportion of males in their SN than high-frequency drinkers.

The remaining one-way ANOVAs for proportion of family elders, proportion on campus in the SN, as well as GS, did not have significant differences between participants based on their drinking status.

To answer what role gender played in the significant differences between proportion of drinkers, males, or level of AS, I conducted a chi-square test of independence. Results indicated that there was no significant gender difference between groups, $X^2 (2, n = 196) = .59, p > .05$. Therefore, relatively equal numbers of males and females were reported within each of the drinking frequency groups.

However, within each gender, differences were reported between frequency groups. Low-frequency drinking males ($n = 47$) consumed significantly less alcohol ($M = 2.82, SD = .65$) than high-frequency drinking males ($n = 37; M = 3.36, SD = .82$), $t (82) = -3.35, p < .01$. Low-frequency drinking females ($n = 45$) significantly consumed less alcohol ($M = 2.11, SD = .32$) than high-frequency drinking females ($n = 39; M = 2.59, SD = .50$), $t (82) = -5.32, p < .01$. (See Figures 2-7 for differences on predictor variables as a function of gender and drinking frequency.)
Drinking quantity

A one-way ANOVA of proportion of drinkers yielded significant differences between groups, F (2,193) = 49.08, p < .01. Post hoc comparisons using the Tukey’s HSD test revealed infrequent drinkers had a significantly lower proportion of drinkers in their SNs than low-quantity drinkers or high-quantity drinkers. Tukey’s HSD test also revealed that low-quantity drinkers had a significantly lower proportion of drinkers in their SNs than high-quantity drinkers.

A one-way ANOVA of AS yielded significant differences between groups, F (2,191) = 36.48, p < .01. Post hoc comparisons using the Tukey’s HSD test revealed that infrequent drinkers had a significantly lower AS scores than low-quantity drinkers or high-quantity drinkers. Tukey’s HSD test also revealed that low-quantity drinkers had a significantly lower AS scores than high-quantity drinkers.

A one-way ANOVA of proportion of males yielded significant differences between groups, F (2,193) = 8.18, p < .01. Post hoc comparisons using the Tukey’s HSD test revealed that infrequent drinkers had a significantly lower proportion of males in their SNs than low-quantity drinkers or high-quantity drinkers. Tukey’s HSD test also revealed that low-quantity drinkers had a significantly lower proportion of males in their SNs than high-quantity drinkers.

The remaining one-way ANOVAs for proportion of family elders and proportion on campus in the SN, as well as GS, did not have significant differences between participants based on their quantity of alcohol consumption.

To answer what role gender played in the significant differences between proportion of drinkers, males, or level of AS, I conducted a chi-square test of independence. Results indicated that there were significant gender differences between groups, \( X^2 (2, n = 196) = 9.19, p < .01 \). Therefore, males and females differed significantly in their drinking quantities, such that there
were more females in the low-quantity drinkers group (n = 56) as compared to males (n = 37),
and more males in the high-quantity drinkers group (n = 47) as compared to females (n = 28).

In addition, within each gender, drinking quantity varied as a function of drinking
frequency group. Low-frequency drinking males significantly consumed less alcohol (M = 2.39,
SD = .36) than high-frequency drinking males (M = 3.59, SD = .58), t (82) = -11.08, p < .01.
Low-frequency drinking females significantly consumed less alcohol (M = 2.14, SD = .44) than
high-frequency drinking females (M = 3.54, SD = .52), t (82) = -12.91, p < .01. (See Figures 8-
13 for differences on predictor variables as a function of gender and drinking quantity.)
One-way ANOVA (drinking frequency & drinking quantity grouping variable)

Table 4 shows the predictor variables use to conduct regression analyses. Number, range, median, mean, and standard deviation are reported.
Table 4a. Hypotheses. Means, and standard deviations of predictor variables.

<table>
<thead>
<tr>
<th>Drinker Status (^a)</th>
<th>High (a) ((n = 76))</th>
<th>Low (b) ((n = 92))</th>
<th>Infrequent (c) ((n = 28))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Variable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prop. Drinkers</td>
<td>.92</td>
<td>.11</td>
<td>.84</td>
</tr>
<tr>
<td>AS Composite</td>
<td>20.79</td>
<td>3.44</td>
<td>18.76</td>
</tr>
<tr>
<td>Prop. Males</td>
<td>.54</td>
<td>.20</td>
<td>.51</td>
</tr>
<tr>
<td>Prop. on Camp.</td>
<td>.39</td>
<td>.31</td>
<td>.47</td>
</tr>
<tr>
<td>GS</td>
<td>5.55</td>
<td>.51</td>
<td>5.61</td>
</tr>
</tbody>
</table>

Table 4b. Means, and standard deviations of predictor variables.

<table>
<thead>
<tr>
<th>Drinker Status (^b)</th>
<th>High (a) ((n = 75))</th>
<th>Low (b) ((n = 93))</th>
<th>Infrequent (c) ((n = 28))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Variable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prop. Drinkers</td>
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<td>.09</td>
<td>.84</td>
</tr>
<tr>
<td>AS Composite</td>
<td>20.73</td>
<td>3.69</td>
<td>18.83</td>
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<tr>
<td>Prop. Males</td>
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<td>.20</td>
<td>.48</td>
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<tr>
<td>Prop. Fam. Eld.</td>
<td>.19</td>
<td>.18</td>
<td>.23</td>
</tr>
<tr>
<td>Prop. on Camp.</td>
<td>.43</td>
<td>.33</td>
<td>.44</td>
</tr>
<tr>
<td>GS</td>
<td>5.68</td>
<td>1.97</td>
<td>5.51</td>
</tr>
</tbody>
</table>

\(^a\) Grouped by drinking frequency

\(^b\) Grouped by drinking quantity

* p < .05.

** p < .01.
Gender Differences in Alcohol Use

I conducted several independent samples t-tests to ensure that no significant gender differences existed with the study sample. Earlier, I mentioned significant gender differences in quantity of alcohol consumption were likely (see Introduction). As expected, the average amount of alcohol consumed by men (M = 3.05, SD = .78) was significantly greater than the average amount of alcohol consumed by women (M = 2.62, SD = .81), t (170) = 3.53, p < .01. On average, males consumed three to four drinks, whereas females consumed approximately two to three drinks, on the days in which they drank.

Results indicated several other gender differences pertaining to alcohol use. Although average amount of alcohol was not significantly affected by gender, results indicated that males (M = 1.91, SD = .41) were significantly more likely than women (M = 1.66, SD = .67), to have consumed alcohol in the past three months, t (165) = 3.15, p < .01. Additionally, AS composite scores were significantly larger for men (M = 19.46, SD = 4.52) than for women (M = 18.02, SD = 4.83), t (194) = 2.16, p < .05, suggesting more alcohol specific support for men than women (see Figure 2).

I expected very few participants to score as problem drinkers. Indeed, less than seven percent (n = 13) indicated, on the demographic questionnaire, that they were heavy drinkers. The majority of heavy drinkers were male (n = 9).
Figure 1. Quantity of alcohol consumption as a function of gender.

Figure caption. QFI average amount of alcohol consumed by men (M = 3.05, SD = .78) was significantly greater than the average amount of alcohol consumed by women (M = 2.62, SD = .81), t (170) = 3.53, p < .01. On average, males consumed three to four drinks, whereas females consumed approximately two to three drinks, on the days in which they drank.

** p < .01.
Figure 2. Alcohol specific support as a function of gender and drinking frequency.

Figure caption. High frequency-drinking males have greater alcohol specific support (M = 21.10, SD = 4.02) than low frequency-drinking males (M = 18.49, SD = 4.05), t (80) = -2.90, p < .01. High frequency-drinking females have greater alcohol specific support (M = 19.53, SD = 3.19) than low frequency-drinking females (M = 17.41, SD = 4.23), t (82) = -2.56, p < .02.

* p < .05.
** p < .01.
Figure 3. General social support as a function of gender and drinking frequency.

Figure caption. No significant differences in general social support as a function of drinking frequency.
Figure 4. Proportion of drinkers in participants’ social network, as a function of gender and drinking frequency.

Figure caption. High frequency-drinking females have a larger proportion of drinkers in their social network (M = .95, SD = .09) than low frequency-drinking females (M = .16, SD = .16), t (69) = -4.74, p < .01.

** p < .01.
Figure 5. Proportion of males in participants’ social network, as a function of gender and drinking frequency.

Figure caption. High frequency-drinking females have a larger proportion of males in their social network (M = .44, SD = .14) than low frequency-drinking females (M = .35, SD = .17), t (82) = -2.52, p < .02.

** p < .01.
Figure 6. Proportion of family elders in participants’ social network, as a function of gender and drinking frequency.

Figure caption. No significant differences in proportion of family elders participants’ social networks as a function of drinking frequency.
Figure 7. Proportion of participants’ social network members living on campus, as a function of gender and drinking frequency.

Figure caption. No significant differences in proportion of social networking members living on campus, as a function of drinking frequency.
Figure 8. Alcohol specific support as a function of gender and drinking quantity.

Figure caption. High quantity-drinking males have greater alcohol specific support (M = 20.86, SD = 3.90) than low quantity-drinking males (M = 18.80, SD = 4.38), t (80) = -2.25, p < .03. * p < .05.
Figure 9. General social support as a function of gender and drinking quantity.

Figure caption. No significant differences in general social support as a function of drinking quantity.
Figure 10. Proportion of drinkers in participants’ social network, as a function of gender and drinking quantity.

Figure caption. High quantity-drinking males have a larger proportion of drinkers in their social network (M = .91, SD = .09) than low quantity-drinking males (M = .84, SD = .19), t (50) = -2.21, p < .04. High quantity-drinking females have a larger proportion of drinkers in their social network (M = .94, SD = .08) than low quantity-drinking females (M = .84, SD = .16), t (82) = -3.85, p < .01.

* p < .05.
** p < .01.
Figure 11. Proportion of males in participants’ social network, as a function of gender and drinking quantity.

Figure caption. No significant differences in proportion of males in participants’ social networks as a function of drinking quantity.
Figure 12. Proportion of family elders in participants’ social network, as a function of gender and drinking quantity.

Figure caption. No significant differences in proportion of family elders in participants’ social networks as a function of drinking quantity.
Figure 13. Proportion of participants’ social network members living on campus, as a function of gender and drinking quantity.

Figure caption. No significant differences in proportion of social networking members living on campus, as a function of drinking quantity.
Gender Differences in Social Network

In addition to gender differences in alcohol use, results indicated gender differences in SN composition. Not surprisingly, proportion of males was significantly larger in male participants’ SNs (M = 0.61, SD = .22) as compared to female participants’ SNs (M = .42, SD = .17), t (182) = 6.92, p < .01. There were also gender differences in SN size. Female participants reported significantly larger SNs (M = 8.1, SD = 2.15) than male participants (M = 7.23, SD = 1.87), t (194) = -3.03, p < .01.

Residence location

I predicted that most of the sample will reside on campus in dormitories, with a small portion living in off-campus housing not affiliated with the university. Indeed most of the sample (79.0 %, n = 158) lived on campus. As predicted, very few participants reported living with their parents (1.5 %, n = 3).

Several differences occurred in the sample according to location of residence. There was a significant difference in age for those living on campus (M = 18.28, SD = .61) and those living off campus (M = 20.19, SD = 2.93), t (42) = -4.19, p < .01. Significantly more females lived on campus (M = .54, SD = .50) as compared to males (M = .36, SD = .49), t (67) = 2.17, p < .05. Also there was a significant difference in frequency of alcohol use, where those off campus drank more often (M = 5.49, SD = 1.50) than those on campus (M = 4.79, SD = 1.91), t (78) = -2.49, p < .05. These results should be interpreted with caution, because the number of individuals living off campus (n = 42) was very small in comparison to those living on campus (n = 158).

Family Elders

As predicted, proportion of family elders in SNs, accounted for a small portion of the variance (see regression results below). Although over two thirds of participants (70.5 %, n =
141) reported at least one family elder in their SN, most participants had very few family elders in their SN. On average, almost half of participants reported that less than one fifth of their SN was composed of family elders (49.5 %, n = 99).

*Social network drinkers*

Because a large majority of college students drink alcohol (SAMHSA, 2006), I predicted it was unlikely that a large majority of network members, mostly students, would be supportive of complete abstinence. Results from the current study indicate that less than ten percent (9.6 %, n = 76) of most important network members “discouraged [the participant] from drinking at all”, and less than seven percent (6.6 %, n = 52) “didn’t accept [the participant’s] drinking.” The majority of network members accepted [the participant’s] drinking (42.2 %, n = 334), while fewer were neutral toward about the participant’s drinking (22.0 %, n = 174), and only twenty percent encouraged [the participant] to drink more (19.7 %, n = 156; note: 792 total number of most important network members, eight values were missing).

To compute the AS composite score, I multiplied two factors: importance of network member to the participant and how that network member felt about the participant’s drinking. Thus, a larger AS composite score signifies greater approval of alcohol use, as well as increased importance of the network member. Participants reported that a majority of network members were either accepting of drinking levels or encouraging participants to drink more (62.1 %, n = 490).
Regression analyses

The main dependent variables in this study were frequency and quantity of alcohol consumption. In order to assess the amount of variance each predictor variable shares with the criterion, two planned hierarchical regression analyses were conducted. I hypothesized that AS is related to the respondent’s drinking more so than GS, and will be a better predictor of drinking, in both quantity (hypothesis one) and frequency (hypothesis two). Regression models were based on a broad, theoretical understanding of AS and SN characteristics (Baer, 2002; Bullers et al., 2001; Cherry, 1987; Havassy et al., 1991; Longabaugh et al., 1993; Perkins & Berkowitz, 1986; Reifman et al., 2006; Senchak et al., 1998).

To test hypothesis one, I conducted a hierarchical regression with drinking frequency (QFI days drinking score) as the criterion and the predictors entered in the following order: 1.) AS, 2.) Proportion of drinkers in network, 3.) Proportion of men in network, 4.) GS, 5.) Number of family elders in network, and 6.) Location of residence (see Table 5 for predictors, Table 6 for regression results). Results indicated that alcohol specific support ($\beta = .38, p < .01$) and proportion of drinkers in SNs ($\beta = .29, p < .01$) significantly predicted frequency of alcohol use among participants. Alcohol specific support [$R^2 = .15, F (1, 175) = 29.60, p < .01$] and proportion of drinkers [$R^2 = .20, F (2, 174) = 22.83, p < .01$] in SNs also explained a significant proportion of variance in frequency of alcohol use. As expected, general social support did not significantly predict frequency of alcohol use ($\beta = -.08, p > .05$).

To test hypothesis two, I conducted a hierarchical regression with drinking quantity as the criterion (QFI average quantity score, recoded; see Materials), and the predictors entered in the following order: 1.) AS, 2.) Proportion of drinkers in network, 3.) Proportion of men in network, 4.) GS, 5.) Number of family elders in network, and 6.) Location of residence (see Table 5 for
predictors, Table 6 for regression results). Results indicated that alcohol specific support \((\beta = .27, p < .05)\) and proportion of drinkers \((\beta = .24, p < .01)\) in SNs significantly predicted quantity of alcohol use among participants. Alcohol specific support \([R^2 = .08, F (1, 178) = 14.38, p < .01]\) and proportion of drinkers \([R^2 = .12, F (2, 177) = 8.57, p < .01]\) in SNs also explained a significant proportion of variance in quantity of alcohol use. As expected, general social support did not significantly predict frequency of alcohol use \((\beta = -.06, p > .05)\).
Hypotheses

Table 5 shows the predictor variables used to conduct regression analyses. Number, range, median, mean, and standard deviation are reported.
Table 5. Hypotheses. Percents, ranges, means, and standard deviations of tested predictor variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Range</th>
<th>Median</th>
<th>M</th>
<th>SD</th>
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<td>AS Composite Score</td>
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<td>19.50</td>
<td>3.79</td>
<td>2.02</td>
</tr>
<tr>
<td>GS</td>
<td>195</td>
<td>1.00-6.00</td>
<td>5.67</td>
<td>5.49</td>
<td>.66</td>
</tr>
<tr>
<td>Proportion of drinkers</td>
<td>200</td>
<td>.17-1.00</td>
<td>.86</td>
<td>.84</td>
<td>.19</td>
</tr>
<tr>
<td>Proportion of males</td>
<td>200</td>
<td>0-1.00</td>
<td>.50</td>
<td>.51</td>
<td>.22</td>
</tr>
<tr>
<td>Proportion of family elders</td>
<td>200</td>
<td>0-.80</td>
<td>.20</td>
<td>.22</td>
<td>.19</td>
</tr>
<tr>
<td>Proportion on campus</td>
<td>200</td>
<td>0-1.00</td>
<td>.42</td>
<td>.43</td>
<td>.31</td>
</tr>
</tbody>
</table>
Regression analyses

Table 6 shows the results from two hierarchical linear regressions. Standardized coefficients, r-squared statistics, and r-squared change statistics shown.
Table 6. Results of Hierarchical Regression Analysis.  

<table>
<thead>
<tr>
<th>Regression</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
<th>Step 6</th>
</tr>
</thead>
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<td>.23**</td>
<td>.25**</td>
<td>.26**</td>
<td>.25**</td>
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<tr>
<td><strong>Proportion drinkers</strong></td>
<td>.29**</td>
<td>.28**</td>
<td>.27**</td>
<td>.28**</td>
<td>.28**</td>
<td>.28**</td>
</tr>
<tr>
<td><strong>Proportion males</strong></td>
<td>.11</td>
<td>.11</td>
<td>.12</td>
<td>.12</td>
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</tr>
<tr>
<td><strong>GS</strong></td>
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<td></td>
<td>-.08</td>
<td>-.08</td>
<td>-.09</td>
<td></td>
</tr>
<tr>
<td><strong>Proportion family elders</strong></td>
<td></td>
<td></td>
<td></td>
<td>.06</td>
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<tr>
<td><strong>Proportion on campus</strong></td>
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<td><strong>R²</strong></td>
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<td>.22**</td>
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<td>.06**</td>
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**Regression 2: Drinking quant.**

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<tr>
<th>Variable</th>
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<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
<th>Step 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AS Composite</strong></td>
<td>.27**</td>
<td>.16*</td>
<td>.17*</td>
<td>.17*</td>
<td>.18*</td>
<td>.19*</td>
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<tr>
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<td>.24**</td>
<td>.24**</td>
<td>.24**</td>
<td>.24**</td>
</tr>
<tr>
<td><strong>Proportion males</strong></td>
<td></td>
<td>-.07</td>
<td>-.06</td>
<td>-.05</td>
<td>-.05</td>
<td></td>
</tr>
<tr>
<td><strong>GS</strong></td>
<td></td>
<td></td>
<td>-.06</td>
<td>-.06</td>
<td>-.05</td>
<td></td>
</tr>
<tr>
<td><strong>Proportion family elders</strong></td>
<td></td>
<td></td>
<td></td>
<td>.08</td>
<td>.11</td>
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</tr>
<tr>
<td><strong>Proportion on campus</strong></td>
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<td></td>
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<td></td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td><strong>R²</strong></td>
<td>.08**</td>
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<td>.12**</td>
<td>.13**</td>
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<td>.04**</td>
<td>.004</td>
<td>.003</td>
<td>.005</td>
<td>.004</td>
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</tbody>
</table>

1 Standardized coefficients are shown.

* p < .05.

** p < .01.
Exploratory analyses

Because the results suggest that AS and proportion of drinkers are significant predictors of frequency and quantity of alcohol use, I conducted an exploratory hierarchical linear regression analysis to investigate the effects of combining frequency and quantity criterion variables in order to conduct a single regression with alcohol use as the criterion. This methodology was justified based on the similar results of running two separate analyses using either alcohol frequency or alcohol quantity as predictors. In order to obtain a measure of frequency and quantity of alcohol use, I multiplied the criterion variables to yield an alcohol composite index, which represents a measure of participants’ quantity and frequency of alcohol use over the past three months. In each analysis, alcohol composite index was entered as the criterion. In the planned analysis, I based the regression model on theoretical constructs of AS and SN properties most likely to affect alcohol use.

For the following exploratory analysis, a hierarchical regression was conducted with alcohol composite index as the criterion and the predictors entered in the following order: 1.) AS, 2.) Proportion of drinkers in network, 3.) Proportion of men in network, 4.) GS, 5.) Number of family elders in network, and 6.) Location of residence (see Table 7 for regression results). Results are very similar to those listed above, indicating that alcohol specific support ($\beta = .37, p < .01$) and proportion of drinkers in SNs ($\beta = .29, p < .01$) significantly predicted quantity and frequency of alcohol use among participants. Alcohol specific support [$R^2 = .14, F (1, 175) = 27.74, p < .01$] and proportion of drinkers [$R^2 = .20, F (2, 174) = 14.06, p < .01$] in SNs explained a significant proportion of variance in quantity and frequency of alcohol use among participants. General social support did not significantly predict frequency of alcohol use ($\beta = -.10, p > .05$).
**Exploratory regression analyses**

Table 7 shows the results from two exploratory hierarchical linear regressions.

Standardized coefficients, r-squared statistics, and r-squared change statistics shown.
Table 7. Results of Exploratory Hierarchical Regression Analysis.  

<table>
<thead>
<tr>
<th>Variable (n = 200)</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
<th>Step 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS Composite</td>
<td>.37**</td>
<td>.23**</td>
<td>.23**</td>
<td>.24**</td>
<td>.25**</td>
<td>.24**</td>
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<tr>
<td>Proportion drinkers</td>
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<td>.28**</td>
<td>.28**</td>
<td>.28**</td>
<td>.28**</td>
<td>.28**</td>
</tr>
<tr>
<td>Proportion males</td>
<td>.07</td>
<td>.08</td>
<td>.09</td>
<td>.08</td>
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</tr>
<tr>
<td>GS</td>
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<td>-.09</td>
<td>-.09</td>
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<tr>
<td>Proportion family elders</td>
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<td>.03</td>
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<tr>
<td>Proportion on campus</td>
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<tr>
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<td>.20**</td>
<td>.21**</td>
<td>.21**</td>
<td>.22**</td>
<td>.23**</td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>.14**</td>
<td>.07**</td>
<td>.01</td>
<td>.01</td>
<td>.01</td>
<td>.01</td>
</tr>
</tbody>
</table>

1 Standardized coefficients are shown.
* p < .05.
** p < .01.
Discussion

It is well established that alcohol use and binge drinking is problematic across most college campuses (Engs et al., 1996; Hingson et al., 2005; SAMHSA, 2006; Wechsler et al., 1995). College life is often coupled with excessive alcohol consumption, and because of the negative consequences associated with binge drinking, college health professionals and educators are focused on reducing the amount of dangerous drinking (Lederman, Stewart, & Russ, 2007). Furthermore, research investigating alcohol abuse protective factors is clearly needed (Dulin, Hill, & Ellingson, 2006). While many researchers are attempting to identify the variables that promote binge drinking among college students, a large portion are also investigating alcohol use interventions tailored specifically to reduce alcohol consumption among college students. Since 1985, over sixty studies of intervention methods addressing student drinking have been published (Carey et al., 2007). Clearly there is a large demand for both researchers and clinicians to improve their understanding of college drinking, in order to reduce harmful alcohol consumption patterns and educate students about the dangers of binge drinking.

Early studies of social networks (SNs) found that individuals with greater levels of social support tended to show marked improvement in rehabilitation from hospitals (Fairweather et al., 1969) and improvement in psychological health (Bergin, 1971), as compared to those without cohesive SNs offering strong social support. Much of the social support research has focused on adaptation to life changes, recovery from illness, life stressors, death of loved ones, and aging (Cobb, 1976). Although the number of social support studies continues to increase substantially (Schwarzer & Leppin, 1989), a common concern among social support researchers has been the lack of a consistent operational definition of social support. Moreover, there are several competing theories of regarding the precise mechanisms of social support. Some studies argue
social support produces a sense of well-being due to the positive effect of having a good support network, whereas the stress-buffering hypothesis posits that social support acts to protect individuals from adverse consequences of stressful life events (Cohen & Wills, 1985). The disagreement in an operational definition as well as several theories of social support functions needs to be reconciled through a different approach of studying these phenomena.

One area of particular interest for some researchers is the effects of social support on recovery from alcoholism and prevention of relapse (Beattie & Longabaugh, 1999; Humphreys, Moos, & Finney, 1996; Rosenberg, 1983). Using a SN inventory to assess network members and type of social support, Longabaugh et al. (1993) identified two distinct forms of social support that affect treatment outcome among recovering alcoholics. Individuals who had greater levels of social support for alcohol abstinence, from network members, showed more favorable treatment outcomes as compared to those individuals who received social support that did not support abstinence. Longabaugh et al. (1993) concluded that alcohol specific support (AS) is a better predictor of treatment outcome than general social support (GS), for recovering alcoholics. It is likely that these different forms of social support also influence alcohol consumption in non-clinical populations, and given the pervasiveness of excessive drinking among college students, it is important to assess how differential social support affects this population.

The current study investigated social support and alcohol use within college students’ SNs. A comprehensive literature search found this to be the first study that examined the influence of differential social support in college populations, using the conceptualization of AS and GS, defined by Longabaugh et al. (1993). Based on previous research in the areas of SNs, social support, and alcohol use in both clinical and college populations (Baer, 2002; Bullers et al., 2001; Cherry, 1987; Cohen & Wills, 1985; Havassy et al., 1991; Hirsch, 1979; Longabaugh et
al., 1993; Perkins & Berkowitz, 1986; Reifman et al., 2006; Senchak et al., 1998), I hypothesized that AS, as measured by the IPA, would account for the largest amount of variance in alcohol consumption frequency, when compared to GS, proportion of drinkers, and/or proportion of males in the respondent’s SN. Results of the current study indicated that AS had an effect on college student drinking, and accounted for a much larger proportion of the variance in frequency of alcohol consumption ($\Delta R^2 = .15$), as compared to GS or proportion of males. Results indicated that proportion of SN drinkers significantly accounted for the frequency ($\Delta R^2 = .06$), although it was a smaller contributor to the variance, as hypothesized.

I also hypothesized that proportion of men and drinkers in the network, as well as AS for drinking would significantly account for the largest amount of variance in quantity of alcohol consumption. Results indicated that AS ($\Delta R^2 = .08$) and proportion drinkers ($\Delta R^2 = .12$) contributed to the largest proportion of variance in quantity of alcohol consumption; however, proportion of men did not significantly accounted for a significant amount of the variance.

To investigate potential differences when creating a composite quantity-frequency score, I conducted an exploratory regression analysis. Results indicated that AS contributed to the largest proportion of the variance ($\Delta R^2 = .14$), followed by proportion of drinkers ($\Delta R^2 = .07$), in SNs. Proportion of males did not contribute to a significant amount of the variance.

The current results supported my hypotheses, and were similar to previous research, which found AS, and not GS (Beattie & Longabaugh, 1999; Havassy et al., 1991; Longabaugh et al., 1993; Zywiak et al., 2002) to significantly predict drinking outcomes in clinical populations with alcohol problems, whereas other predictors did not account for a large proportion of the variance. These results also mirrored previous research that found the likelihood of drinking increase with the number of network members who are drinkers and heavy drinkers (Baer, 2002; Fondacaro &
Furthermore, these findings follow from earlier research that has reported larger drinking groups are associated with greater consumption of alcohol (Rosenbluth et al., 1978).

Although the current study found that AS significantly accounted for a proportion of variance in quantity and frequency of alcohol consumption, rather than GS, these findings are contested by some more recent work in clinical populations. Groh and colleagues (2007) found that GS, but not AS, significantly predicted drinking outcomes for recovering alcoholics (Groh et al., 2007). Granted it is difficult to compare clinical to non-clinical populations regarding alcohol consumption, these results are different from a larger body of previous research. (Beattie & Longabaugh, 1999; Havassy et al., 1991; Longabaugh et al., 1993; Zywiak et al., 2002).

Regardless of potential inconsistencies in previous research, the current findings are promising, especially considering the size of the correlation coefficients for several predictor variables. Previous literature examining alcohol use in SNs has indicated that correlation coefficients rarely exceed .30 in this area of research (Fondacaro & Heller, 1983). In the current study, within the two planned hierarchical regressions, reported regression coefficients for AS (β = .38, for frequency regression and β = .27, for quantity regression), and proportion of drinkers (β = .29, for frequency regression β = .24, for quantity regression), were very strong for this area of research. Future work must investigate why only these two predictors significantly accounted for a proportion of variance in frequency and quantity of alcohol consumption.

**Proportion of males**

The current findings suggest that proportion of males in SNs did not account for a significant amount of variance in quantity or frequency of alcohol consumption. This is contrary to the empirical and anecdotal evidence that males consume more alcohol than females. In a large literature review, Berkowitz and Perkins (1987) found researchers consistently reported
that gender differences exist between men and women, such that men are likely to consume
greater quantities of alcohol and more often than women. Furthermore, Engs and Hanson (1990)
expounded on the large body of research over several decades that males report more frequent
and higher consumption of alcohol than females. Because the current results did not support that
proportion of males significantly contributes to the variance in quantity or frequency of alcohol
use, future studies need to investigate whether this does indeed occur in college populations.

Proportion of family elders

Results indicated that proportion of family elders, did not account for a large amount of
variance in drinking quantity and frequency. Although this finding is similar some previous
research (Fondacaro & Heller, 1983), it contradicted my hypothesis that proportion of family
elders would account for a significant amount of variance in participants’ alcohol use. It is
important to note that recent research suggests a low proportion of family members in SNs may
be a risk factor for drinking, and that a greater percentage of family elders in SNs is associated
with lower drinking in college populations (Reifman et al., 2006). Furthermore, there was a
likelihood of underreporting of family members in SNs in the present study (see Limitations).
Future research needs to clarify the importance of family elders.

Residence location

Location of residence was not a significant predictor of frequency or quantity of alcohol
use, which was contrary to my hypothesis. This is interesting given previous findings that
indicate residence in dormitories is associated with increased drinking, as opposed to living off
campus (Gfroerer et al., 1997). As mentioned earlier, participants off campus drank more
frequently than those participants on campus; however, there were no significant differences in
drinking quantity. Although these results could be influenced by the unequal group sizes, given
that a majority of this sample lived on campus (79 %, n = 158), there is a need for further research to assess the differences between college student drinking behaviors as a function of residence. This is strongly warranted given that one recent study found off campus college students drink less frequently, and with less quantity than those on campus (Baer et al., 1995). One likely explanation is the difference in environmental and social variables students encounter when living on versus off campus. Because alcohol consumption is often used as a social lubricant (Clifford et al., 1989) and to make friends (Wetherill & Fromme, 2007), perhaps those students living off campus are not as actively engaged in making new acquaintances as those living on campus, which may facilitate a reduced need in alcohol consumption for social reasons.

General discussion

This study successfully adapted and used a modified version of the Important People and Activities (IPA) inventory in a non-clinical population. Although the current methodology enabled researchers to use the IPA rather effectively, it is important to consider adapting the IPA for use as a computer-based, self-report inventory, which has been suggested as a worthwhile endeavor by others (Groh et al., 2007). Although additional revisions to the IPA are warranted (see Limitations), the present study demonstrated the feasibility of using the IPA in non-clinical populations.

Two variables (AS and proportion of drinkers) hypothesized to influence alcohol use, significantly predicted the quantity and frequency of alcohol use in the present study. Although not all the research hypotheses were supported, the current findings suggest that differential social support indeed does influence alcohol consumption among college students. That is, AS is a better predictor of alcohol use than GS. Such findings parallel research in clinical populations concerning treatment outcomes in alcoholics, which suggests that social support specifically
related to alcohol use is a greater determinant of alcohol use in the individual, than general types of social support (e.g., advice, friendship, participating in common activities; Beattie & Longabaugh, 1999; Havassy et al., 1991; Longabaugh et al., 1993; Zywiak et al., 2002).

The current findings compliment both previous research and general opinions about alcohol use. It seems likely that important network members who disapprove of alcohol consumption, or promote abstinence, would significantly reduce the respondent’s drinking behaviors. Conversely, if those same important network members approved of or promoted alcohol consumption, one would expect drinking behaviors to reflect those sentiments; where the respondent would likely exhibit increased alcohol use.

Alcoholics Anonymous (AA) is often used as an example of an example of AS among network members (Humphreys et al., 1996; Longabaugh et al., 1998). Although results are mixed, many studies suggest that AA helps reduce depression (Finney et al., 1980) and improves recovery outcomes (Longabaugh et al., 1998), while providing the individual with a SN that supports abstinence. Because a large majority of college students drink alcohol (SAMHSA, 2006), I expected that it was unlikely that many students would be supportive of complete abstinence. As expected, this was true for the current study.

The current findings suggest that AS is greater in high-frequency drinking males and females, when compared to low-frequency-drinking males and females. In addition, AS is greater in high-quantity drinking males than low-quantity drinking males. Future research needs to investigate why AS was not significantly greater for high-quantity female drinkers than low-quantity female drinkers. However, it is worth noting that the difference in AS between these groups did approach significance. Overall, these findings suggest that AS has a significant effect on the quantity and frequency of alcohol use in male and female college students. These results
are particularly compelling because there were no significant differences in GS in high versus low – frequency or quantity – drinkers. Similar to previous research in clinical populations, the current results suggest that AS is a more important determinant of alcohol use in college students than GS.

**Limitations**

In order to be feasible for a master’s thesis, there were unavoidable limitations to this study design. The most significant limitation is that the study was cross-sectional. As mentioned earlier (see Introduction), it is beneficial for SN research in college populations to be longitudinal in order to make causal inferences; however, there was no time to do so for a master’s thesis.

Second, IPA administration, by nature, requires egocentric reporting – that is only the participant is reporting about his/her SN. Although several studies have demonstrated reliable results for self-report measures (Cooper et al., 1981; Midanik, 1988), multiple reporters are preferable in order to confirm the accuracy of the reporting, and to reduce variability in responses. Moreover, it is important to understand the potential differences between egocentric and multiple subject reporting for SNs and drinking use patterns, as some differences have been observed in reports of substance use among college students (Hagman et al., 2007).

It is important to obtain an accurate measure of alcohol use and social support within respondents’ SNs. As such, the validity of egocentric reporting is often questioned by many SN researchers. This methodological constraint is common among all SN research, and has yet to be sufficiently resolved (Kogovšek & Ferligoj, 2004; Reifman et al., 2006). An ideal methodology for future studies would require collection of information from the respondent as well as information from the respondent’s important network members. Despite these methodological limitations, I am confident about the validity of self-reported alcohol use over a 3-month period.
Furthermore, because recent reports of consumption are easier to validate than questions pertaining to longer periods of use (Dowdall & Wechsler, 2002), I did not anticipate any validity problems when assessing alcohol use. High, positive correlations between QFI and Demographic Questionnaire self-report responses for alcohol use, suggested that participants were self-reporting alcohol use consistently.

Third, as far as I know, prior to this study the IPA has only been used in clinical samples. Thus, a factor analysis of the modified IPA for college populations is warranted. The administration of the IPA was modified from a structured clinical interview to self-administration in large groups. Regarding modifications to AS scoring, Longabaugh et al. (1993; pg. 466) described alcohol specific support as:

[B]ehaviors by others in the individual’s environment that stimulate and/or reinforce alcohol consumptions or abstinence.

Longabaugh and colleagues (1993) conducted a factor analysis to yield a measure of support for alcohol involvement versus abstinence. They concluded that participants who perceived others as more accepting of their drinking, and were likely drinkers themselves, were considered to have environments supportive of alcohol use. Although I did not conduct a factor analysis or use several indices to compute the AS composite score, I believe the methods used in this current study accurately described the level of support for alcohol use or abstinence within participants’ SNs. Future research will need to confirm this contention.

Although I gave considerable thought toward updating the IPA for a college-aged, non-clinical population, more work is needed to ensure the appropriate modifications were made. For example, when updating the question asking participants, “How do you spend time with this person?” I failed to consider the importance of text messaging when making these revisions, and
did not include it as an example of spending time with a person. On more than on occasion, participants listed “texting” as a way of spending time with network members. Undoubtedly, several other modifications to the IPA need meticulous follow up studies to ensure the highest level of internal validity. Future studies must examine and perfect this modified college version.

Other limitations of this study were due to noncompliance in directions for completing the questionnaires. Specifically, several issues occurred with IPA administration. Although directions indicated participants list at least six network members, one participant listed only five network members. Given the low incidence of this issue, it was not a significant problem for analyses; however, it does raise the question about the best method for ensuring participants are able to properly complete the IPA. Anonymity was an important theme of this research, thus I did not know the participant listed only five network members until after the study session; however, there must be a balance to ensure participants understand how to complete the questionnaires.

Another concern about the IPA was college students’ perceptions of SNs. With the rising popularity of social networking sites like Facebook and MySpace (Tong et al., 2008), participants may exhibit an unconscious bias about who they consider to be network members. If participants are primed to consider network members as peers only, underreporting of family elders was possible. Considering that almost three quarters of the sample were freshmen, it is surprising that almost one third of the sample did not report even one family member as a network member. Underreporting of family elders likely occurred, which may have affected the contribution of family elders in predicting alcohol consumption.

A related concern is the potential misrepresentation of network members because the IPA instructions did not mention methods of communication until after participants listed their
network members (see Appendix F, IPA 7a.). By doing so, participants did not receive examples of communication with network members until after listing their six to twelve network members. It is possible that participants did not list family members or important network members who mainly communicate with the participant via telephone or email. However, for the understanding of college drinking variables, it is important to consider the influence from all network members, including those who may infrequently communicate with the participant in-person, but are nevertheless very important to the participant’s functioning.

The amount of questionnaires and length and specificity of the IPA appeared to frustrate some participants. It is not surprising that over forty percent of participants listed only six people in their SN. In pilot work, participants often attempted to complete the questionnaires in as little time as possible (Pinsky & Noel, unpublished). Although many participants likely had more than six network members, the length and rigors of the questionnaire packet may have affected reporting on the IPA. Future studies must address the length and detailed nature of the IPA, in order to adapt an effective self-administration format for the measure. While this study was an important step forward in assessing the feasibility of using the IPA as a measure of alcohol specific and general social support within SNs, it may be worthwhile to consider alternative SN measures (e.g., Social Network Index; Schaefer et al., 1981), and to compare which measure best represents the respondent’s SN.

As with several studies using a convenience sample on college campuses, there was a lack of ethnic diversity. Future studies need to examine the potential differences in alcohol consumption as a function of ethnicity.
**Implications**

Despite these limitations, the current study offers new insights into the relation between college drinking and SNs, specifically in regard to the distinct types of social support offered within these networks. The current findings support previous research that suggests AS is a better predictor of alcohol use than GS. The implications of these findings are far reaching.

College students are experiencing major life transitions; they are living away from home and must address life stressors without their normal social support group of family and friends (Brennan, Walfish, & AuBuchon, 1986). Intervention programs must reflect the needs of college students who may be lacking social support. Such programs also need to address ways in which students can be cognizant of how their well-being and alcohol/drug use is affected by members of their SN, specifically by identifying ways to modify their SN if they are not receiving helpful and psychologically healthy social support.

Rather than focusing on these issues, current social norms campaigns, commonplace on practically every college campus, that inform students about what percentage of their school is partaking in binge drinking or problematic drinking-related behaviors. Although these social norms campaigns aim to help prevent binge drinking among college students, researchers, clinicians, and college administrators need to reevaluate the effectiveness of these campaigns. The efficacy of social norms campaigns as appropriate interventions is in question, due mixed results (Mattern & Neighbors, 2004). Furthermore, some researchers have found no significant difference in quantity or frequency of alcohol use between colleges that implemented social norms campaigns, and those that did not (Wechsler et al., 2003). Clearly, the effectiveness of these campaigns is in question, and perhaps we need to consider the importance of drinking variables within SNs. Instead of offering different activities and events in hopes that they will
substitute for excessive alcohol use, we need to begin considering the amount of social support for alcohol use within an individual’s SN, especially for those network members most important to that individual.

Behavioral economic literature is often used to suggest that substance use can be reduced, and essentially replaced, by increasing reinforcement of substance-free behaviors (Correia et al., 2005). Although there is evidence to suggest substance-free behaviors decrease substance use (Carroll, 1996; Correia et al., 2005), it is essential to consider approaching college binge drinking from many angles if clinicians and university administrators want to achieve reductions in harmful alcohol use. It is important to consider the current findings as an additional means to prevent binge drinking, and promote healthier lifestyles among college students.

Many more studies are necessary to replicate and bolster the current findings; however, combined with ample amounts of previous research in this area, the current findings suggest that differential social support also affects college drinking, just as it does when predicting treatment outcomes in clinical populations. The parallels are not only interesting, but suggest a large need for continued research in this area. Although more work is needed in the areas of differential social support among college populations, the results of the current study will help guide the direction of future research, in addition assisting with the development of novel alcohol prevention and intervention programs.

A key toward realizing these goals, as with any substance use and treatment outcome research, is dissemination of experimental findings and advocacy for alternative prevention and treatment methods. By considering these results and integrating them into prevention campaigns, researchers and clinicians can move closer toward applying the knowledge of differential social support to help educate college students about the ways in which their SNs can be helpful and
harmful in regard to alcohol consumption and drug use, as well as the effect of SNs on healthy psychological functioning.
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APPENDICES

Appendix A. Informed Consent Document

This is a study conducted by the UNC Wilmington BEACH Lab (910) 962 – 7832. This study is about important people, activities, and alcohol use in your social network. Your participation is entirely voluntary and completely anonymous. Please do not include any specifically identifying material in your responses. The questionnaires should take approximately 45 minutes to complete. You will receive 1 credit hour for your Psychology 105 class for participating in this study.

The Principal Investigator is David Pinsky, B.S. (djp7615@uncw.edu) Supervision by Dr. Nora E. Noel (Noeln@uncw.edu), UNCW Department of Psychology.
Appendix B. Demographic Information Sheet

Age _________  Gender  M  F

**Current Marital/Dating Status (please circle one)**
Married  Single  Divorced/Separated  Steady Dating Situation  Other

**Current Educational Status (please circle one)**
Less than High School  High School Graduate  College Freshman
College Sophomore  College Junior  College Senior  Grad Student
College Graduate  Other _________________________________

**Current Employment Status (please circle most applicable)**
Employed Full Time  Employed Part time  Full Time Student
Unemployed (No work or school)

Primary Ethnic Background: ________________________________

**Residence**
Residence Hall  Campus Apartment  Own Apartment  Off campus
Other (Specify) ________________________________

**Living Arrangement – who do you live with?**
Alone  roommates/friends (if so, how many? _____)  Parents  Other (specify) __________________________

Continued on back page
Are you a member of a fraternity or sorority?  Y   N

Are you on an athletic team?  Y   N

Are you a member of other campus societies?  Y   N

Are you active in an organized religion?  N   Y (Specify) ____________________

What is your (approximate) GPA?____________

What is your drinking status? (please circle one)

5 = problem drinker
4 = heavy drinker
3 = moderate drinker
2 = light drinker
1 = abstainer

How often do you drink alcohol? (please circle one)

8 = daily
7 = three to six times a week
6 = one or two times a week
5 = about every other week
4 = about once a month
3 = less often than monthly
2 = once in the past six months
1 = not in the past six months

When you drink, what is the most you have in a single day? (please circle one)

5 = ten or more drink
4 = six to nine drinks
3 = three to five drinks
2 = one to two drinks
1 = I don’t drink

Do you consider yourself:

1  2   3    4    5
Heterosexual          Bisexual       Homosexual
Appendix C. Modified Quantity Frequency Index (QFI)

Next we want you to answer questions about YOUR use of alcohol and other psychoactive substances. Please answer to the best of your ability.

I. Frequency of alcohol use in last three months:

a. __ If you have never had an alcoholic beverage (beer, wine or liquor) in your life, check here and go to I c.

b. __ If you have not had any alcoholic beverage in the LAST THREE MONTHS, check here and go on to I c.

c. If you checked I a or I b, please check the reasons for deciding not to drink (check all that apply)

1. __ Not old enough (it's illegal)
2. __ Religious or moral disapproval of alcohol use
3. __ Health Reasons (e.g. illness, pregnancy)
4. __ Concern that you might have (or develop) an alcohol problem
5. __ Other (specify)

d. If you did not check I a, b, or c, please answer the following questions:

During the LAST THREE MONTHS (about 90 days) about how many days would you estimate that you drank at least one alcoholic beverage? (Think about weekends, parties, stressful events, celebrations with friends, meals, and so on). Remember to estimate between 1 and 90 days:

e. During the LAST THREE MONTHS (about 90 days), have you experienced a major change on your drinking habits?

1. __ No, my drinking stayed the same as usual
2. __ Yes, I quit drinking altogether
3. __ Yes, I started drinking for the first time
4. __ Yes, I started drinking much more than I usually do
5. __ Yes, I started drinking much less than I usually do

II. Varieties of alcohol used in the last three months

a. Think carefully about all the times in the LAST THREE MONTHS that you drank any HARD LIQUOR (including, for example, scotch, gin, bourbon, creme de menthe, khalua, schnapps, mixed drinks or similar beverages with high alcohol content.

1. In the last THREE MONTHS, how often did you drink HARD LIQUOR?
   almost everyday _5-6 days/wk _3-4 days/wk _1-2 days/wk
   _1-3 days/month _less than once per month _Never

2. In the last THREE MONTHS, on the average, how much HARD LIQUOR did you drink PER DAY on the days you drank?
   _17 shots (1/5th of liquor) or more _11-16 shots (11 shots = 1 pint) _8-10 shots/drinks
   _5-7 shots/drinks _3-4 shots/drinks _1-2 shots/drinks
   _I never drink liquor

b. Think carefully about all the times in the LAST THREE MONTHS that you drank any WINE (including, for example, table wine, dinner wine, dessert wine, port, or sherry).

1. In the last THREE MONTHS, how often did you drink WINE?
   almost everyday _5-6 days/wk _3-4 days/wk _1-2 days/wk
   _1-3 days/month _less than once per month _Never

Continued on back page
2. In the last THREE MONTHS, on the average, how much WINE did you drink PER DAY on the days you drank?
   _17 or more 5 oz glasses of wine
   _11-16, 5 oz glasses of wine (15 glasses = 3 bottles)
   _8-10, 5 oz glasses of wine (10 glasses = 2 bottles)
   _5-7, 5 oz glasses of wine (5 glasses = 1 bottle)
   _3-4, 5 oz glasses of wine
   _1-2, 5 oz glasses of wine
   _I never drink wine

c. Think carefully about all the times in the LAST THREE MONTHS that you drank any BEER or similar low alcohol beverages (including, for example, beer, ale, wine coolers, Zima, light or ice beer).
   1. In the last THREE MONTHS, how often did you drink BEER?
      _almost everyday
      _5-6 days/wk
      _3-4 days/wk
      _1-2 days/wk
      _1-3 days/month
      _less than once per month
      _Never

   2. In the last THREE MONTHS, on the average, how much BEER did you drink PER DAY on the days you drank?
      _17 or more 12 oz cans or bottles
      _11-16 12 oz cans or bottles
      _8-10 12 oz cans or bottles
      _5-7 12 oz cans or bottles
      _3-4 12 oz cans or bottles
      _1-2 12 oz cans or bottles
      _I never drink beer

III. Quantity of alcohol used in the last three months

   a. People often drink more than one type of alcoholic beverage on a given day. In addition, their drinking often varies depending on whether it is a weekday or weekend. Therefore, we want you to think of a TYPICAL WEEKDAY on which you drank, and estimate the amounts of each of these three beverages you had to drink.
      (Example: "On Thursdays, when I would get together with friends, I would drink about three 12 oz beers and two mixed drinks"

      Remember: STANDARD DRINK = 12 oz beer = 5 oz wine = 1.5 oz hard liquor

   1. Estimated average drinking on a TYPICAL WEEKDAY in the LAST THREE MONTHS:
      (Please fill in below with respect to the number of Standard Drinks)

      _____ Number of standard drinks consumed on a typical weekday on which you drank

   Now we want you to think of a typical WEEKEND DAY (Friday, Saturday or Sunday) on which you typically drank, and estimate your average drinking on that day.

   2. Estimated average drinking on a TYPICAL WEEKEND DAY in the LAST THREE MONTHS:
      (Please fill in below with respect to the number of Standard Drinks)

      _____ Number of standard drinks consumed on a typical weekend day on which you drank

   3. Finally, of all the days in the last three months, what is the LARGEST AMOUNT of alcohol you have had in one 24 hour period?
      (Please fill in below with respect to the number of Standard Drinks)

      _____ Largest number of standard drinks consumed in a 24 hour period

go to next page
**OTHER SUBSTANCE USE**

How often have you used any of these psychoactive substances in the LAST THREE MONTHS?

Code frequency of use according to the following:

0 = Never
1 = 1 or 2 times in the last three months
2 = once per month
3 = once every two weeks
4 = once per week
5 = 2 - 4 times per week
6 = almost everyday

<table>
<thead>
<tr>
<th>Substance</th>
<th>Frequency of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
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<tr>
<td>Caffeine</td>
<td></td>
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<tr>
<td>Nicotine</td>
<td></td>
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<tr>
<td>Marijuana</td>
<td></td>
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<tr>
<td>Hashish</td>
<td></td>
</tr>
<tr>
<td>Crack</td>
<td></td>
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<tr>
<td>Cocaine</td>
<td></td>
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<tr>
<td>Amphetamines (not prescribed)</td>
<td></td>
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<tr>
<td>Barbiturates (not prescribed)</td>
<td></td>
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<tr>
<td>Benzodiazapines (not prescribed)</td>
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<tr>
<td>Other Tranquilizers (&quot;&quot;&quot;)</td>
<td></td>
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<tr>
<td>Heroin</td>
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<tr>
<td>Other opiates (not prescribed)</td>
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<tr>
<td>Hallucinogens</td>
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<td>Inhalants</td>
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<td>Birth Control</td>
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<tr>
<td>Any drugs by injection ever</td>
<td></td>
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</tbody>
</table>

Current Prescribed medications:

- Amphetamines
- Barbiturates
- Benzodiazapines
- Other Tranquilizers
- Opiates (e.g. Methadone, Darvon)
- Antidepressants (e.g. Prozac)
- Antipsychotics (e.g. Haldol)
- Antimanic (e.g. Lithium)

Other psychoactive medication

__________________  __________

Please continue on back page
Do you feel you **currently** have a drinking or drug problem?  N  Y
(What substances and when did the problems first begin?)

Have you ever in the past had a problem with or been dependent on any of these substances?  N  Y
(what? and when did it first become a problem? When did it stop being a problem?)

Have you ever "needed" a drink, or a "hit" or a dose of a drug first thing in the morning?  N  Y

Have you ever had a **blackout** (a period of time when you continued to behave normally, but didn't remember at all the next day) from alcohol or other drugs?  N  Y (what substances?)

Have you ever had bad "shakes" or high fevers, seizures, hallucinations, heavy sweating or other such withdrawal symptoms when you have gone without drinking or substance use for awhile?  N  Y

Have you ever attended a self-help group (like Alcoholics Anonymous, or Women for Sobriety, or Narcotics Anonymous) for yourself?  N  Y

Have you ever had treatment for an alcohol or drug problem?  N  Y

Do, or did, any of your family members have an alcohol or drug problem?  N  Y
If yes, closest relative and what kind of problem (alcohol, drugs or both?)
Appendix D. Important People & Activities

SOCIAL NETWORK:

Please indicate which people you have spent the most time with in the past three months, who are at least 12 years old.

| Initials (first and last) | 1a.) Relationship | 2a.) Sex | 3a.) Age | 4a.) Ethnicity | 5a.) How important is religion? | 6a.) Years Known | 7a.) Method of Contact | 8a.) Amount of Contact | 9a.) Drinking Status | 10a.) How often do they drink? | 11a.) What is the most he/she drinks in a single day? |
|---------------------------|-------------------|---------|---------|---------------|----------------|
| 1.                        |                   |         |         |               |                  |                |                   |
| 2.                        |                   |         |         |               |                  |                |                   |
| 3.                        |                   |         |         |               |                  |                |                   |
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| 9.                        |                   |         |         |               |                  |                |                   |
| 10.                       |                   |         |         |               |                  |                |                   |
| 11.                       |                   |         |         |               |                  |                |                   |
| 12.                       |                   |         |         |               |                  |                |                   |
SOCIAL NETWORK, Additional Questions:

| Initials | 1b.) Is this person a student? | 2b.) Where does this person live? | 3b.) Does this person live with you? | 4b.) Is this person a fraternity or sorority member? | 5b.) Year in school? | 6b.) How much can you count on this person for emotional support? | 7b.) How much can you count on this person for advice? | 8b.) How often do you study with this person? | 9b.) How often do you socialize with this person? | 10b.) What was the last thing (activity) you did with this person? | 11b.) What activity or activities do you most often do with this person? |
|----------|--------------------------------|-----------------------------------|-------------------------------------|--------------------------------------------------|-----------------|-------------------------------------------------|----------------|--------------------------------|
| 1.       |                                |                                   |                                     |                                                  |                 |                                                 |                |                                |
| 2.       |                                |                                   |                                     |                                                  |                 |                                                 |                |                                |
| 3.       |                                |                                   |                                     |                                                  |                 |                                                 |                |                                |
| 4.       |                                |                                   |                                     |                                                  |                 |                                                 |                |                                |
| 5.       |                                |                                   |                                     |                                                  |                 |                                                 |                |                                |
| 6.       |                                |                                   |                                     |                                                  |                 |                                                 |                |                                |
| 7.       |                                |                                   |                                     |                                                  |                 |                                                 |                |                                |
| 8.       |                                |                                   |                                     |                                                  |                 |                                                 |                |                                |
| 9.       |                                |                                   |                                     |                                                  |                 |                                                 |                |                                |
| 10.      |                                |                                   |                                     |                                                  |                 |                                                 |                |                                |
| 11.      |                                |                                   |                                     |                                                  |                 |                                                 |                |                                |
| 12.      |                                |                                   |                                     |                                                  |                 |                                                 |                |                                |
IMPORTANT PEOPLE

Of those people that you have listed, please name the 4 that you think have been the most important to you during the past 3 months.

These would be people who have had an impact on your life, whether you liked them or not.

Note: ALL QUESTIONS APPLY TO THE PAST 3 MONTHS.

<table>
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<th>1c.) Of those people you listed, who are the most important?</th>
<th>2c.) How much have you liked this person?</th>
<th>3c.) How important has this person been to you?</th>
<th>4c.) How did this person feel about your drinking? (If you didn’t drink, how would this person feel about your drinking?)</th>
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**IMPORTANT ACTIVITIES**

The following questions are about how you spent your time in the past 3 months. This includes activities that you have spent a lot of time doing, whether you liked them or not. It also includes activities that have been important to you and the way you live, even if you spent less time doing them. Other people, such as those you have listed previously, may have participated in these activities with you, but they may also be activities that you did alone. For example, the activities may be your work, doing housework, looking for a job, a campus activities club, Sunday dinner with your family, working on your car or in your garden, or whatever else you identify as activities that are important to you.

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<td>List below the activities which you spend a lot of time doing, or activities you did, perhaps spending less time, but which were important to you and the way you lived.</td>
<td>About how many hours did you spend each week on this activity in the past 3 months?</td>
<td>How much have you liked this activity?</td>
<td>How important has this activity been?</td>
<td>How often did you drink alcohol during this activity?</td>
<td>How often did others present drink alcohol during this activity?</td>
<td>If applicable, which important person(people) also spent time with you during this activity?</td>
<td>How often did your important person(people) spend time with you during this activity?</td>
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*Note: List at least four activities*
Appendix E. Social Support Questionnaire (Short Form; SSQSR)

1.) Whom can you really count on to be dependable when you need help?
No one 1) 4) 7) 10) 
2) 5) 8) 11) 
3) 6) 9) 12)

2.) Overall, how satisfied are you with this support?
6 – very 5 – fairly 4 – a little 3 – a little 2 – fairly 1 – very 
satisfied satisfied satisfied dissatisfied dissatisfied dissatisfied

3.) Whom can you really count on to help you feel more relaxed when you are under pressure or tense?
No one 1) 4) 7) 10) 
2) 5) 8) 11) 
3) 6) 9) 12)

4.) Overall, how satisfied are you with this support?
6 – very 5 – fairly 4 – a little 3 – a little 2 – fairly 1 – very 
satisfied satisfied satisfied dissatisfied dissatisfied dissatisfied

5.) Who accepts you totally, including both your worst and your best points?
No one 1) 4) 7) 10) 
2) 5) 8) 11) 
3) 6) 9) 12)

6.) Overall, how satisfied are you with this support?
6 – very 5 – fairly 4 – a little 3 – a little 2 – fairly 1 – very 
satisfied satisfied satisfied dissatisfied dissatisfied dissatisfied

7.) Whom can you really count on to care about you, regardless of what is happening to you?
No one 1) 4) 7) 10) 
2) 5) 8) 11) 
3) 6) 9) 12)

8.) Overall, how satisfied are you with this support?
6 – very 5 – fairly 4 – a little 3 – a little 2 – fairly 1 – very 
satisfied satisfied satisfied dissatisfied dissatisfied dissatisfied

9.) Whom can you really count on to help you feel better when you are feeling generally down-in-the-dumps?
No one 1) 4) 7) 10) 
2) 5) 8) 11) 
3) 6) 9) 12)

10.) Overall, how satisfied are you with this support?
6 – very 5 – fairly 4 – a little 3 – a little 2 – fairly 1 – very 
satisfied satisfied satisfied dissatisfied dissatisfied dissatisfied

11.) Whom can you count on to console you when you are very upset?
No one 1) 4) 7) 10) 
2) 5) 8) 11) 
3) 6) 9) 12)

12.) Overall, how satisfied are you with this support?
6 – very 5 – fairly 4 – a little 3 – a little 2 – fairly 1 – very 
satisfied satisfied satisfied dissatisfied dissatisfied dissatisfied
- The following questions ask about people in your environment who provide you with help or support. Each question has two parts.

- For the first part, list all the people you know, excluding yourself, whom you can count on for help or support in the manner described.

- Give the persons’ initials.

- Do not list more than one person next to each of the numbers beneath the question.

- For the second part, circle how satisfied you are with the overall support you have.

- If you have had no support for a question, circle the words “No one,” but still rate your level of satisfaction.

- Do not list more than twelve persons per question. You may only list those people who are in your social network.

- Please answer all the questions as best you can.

EXAMPLE:

Whom do you know whom you can trust with information that could get you in trouble?

No one 1) TS  4) AP  7)  10)
2) SK  5) NH  8)  11)
3) JL  6)  9)  12)

Overall, how satisfied are you with this support?

6 – very satisfied 5 – fairly satisfied 4 – a little satisfied 3 – a little dissatisfied 2 – fairly dissatisfied 1– very dissatisfied
Social Networks & Alcohol Use

• We will begin once all participants have arrived
• Please have a pen/pencil ready
• This study takes approximately 45 minutes
• You will receive one (1) credit for Psych 105
Informed Consent

Consent To Participate in a Research Study
Social Networks & Alcohol Use

• This is a study conducted by the UNC Wilmington BEACH Lab. This study is about important people, activities, and alcohol use in your social network. Your participation is entirely voluntary and completely anonymous. Please do not include any specifically identifying material in your responses. The questionnaires should take approximately 45 minutes to complete. You will receive 1 credit hour for your Psychology 105 class for participating in this study.

• The Principal Investigator is David Pinsky, B.S. (djp7615@uncw.edu)
• Supervision by Dr. Nora E. Noel (noeln@uncw.edu)
• BEACH Lab: 910.962.7832
• UNCW Department of Psychology
Demographic Survey

– This sheet is two-sided

– Please write the PN and the date in the upper right-hand corner of each page

– Please sit quietly once you have finished, we will continue shortly
Modified QFI

– This survey is 2 two-sided pages

– Please write the PN and the date in the upper right-hand corner of each page

– Please sit quietly once you have finished, we will continue shortly
MODIFIED QFI

Next we want you to answer questions about YOUR use of alcohol and other psychoactive substances. Please answer to the best of your ability.

I. Frequency of alcohol use in last three months:

a. __ If you have never had an alcoholic beverage (beer, wine or liquor) in your life, check here and go to I.c.

b. __ If you have not had any alcoholic beverage in the LAST THREE MONTHS, check here and go on to I.c.

c. If you checked I a or I b, please check the reasons for deciding not to drink (check all that apply)

1. __ Not old enough (it's illegal)
2. __ Religious or moral disapproval of alcohol use
3. __ Health Reasons (e.g. illness, pregnancy)
4. __ Concern that you might have (or develop) an alcohol problem
5. __ Other (specify)

d. If you did not check I a, b, or c, please answer the following questions:

During the LAST THREE MONTHS (about 90 days) about how many days would you estimate that you drank at least one alcoholic beverage? (Think about weekends, parties, stressful events, celebrations with friends, meals, and so on). Remember to estimate between 1 and 90 days:

________ Days

e. During the LAST THREE MONTHS (about 90 days), have you experienced a major change in your drinking habits?

1. __ No, my drinking stayed the same as usual
2. __ Yes, I quit drinking altogether
3. __ Yes, I started drinking for the first time
4. __ Yes, I started drinking much more than I usually do
5. __ Yes, I started drinking much less than I usually do

II. Varieties of alcohol used in the last three months

a. Think carefully about all the times in the LAST THREE MONTHS that you drank any HARD LIQUOR (including, for example, scotch, gin, bourbon, creme de menthe, kahlua, schnapps, mixed drinks or similar beverages with high alcohol content.

1. In the last THREE MONTHS, how often did you drink HARD LIQUOR?
   __ almost everyday __ 5-6 days/wk __ 3-4 days/wk __ 1-2 days/wk
   __ 1-3 days/month __ less than once per month __ Never

2. In the last THREE MONTHS, on the average, how much HARD LIQUOR did you drink PER DAY on the days you drank?
   __ 17 shots (1/5th of liquor) or more __ 11-16 shots (11 shots = 1 pint) __ 8-10 shots/drinks
   __ 5-7 shots/drinks __ 3-4 shots/drinks __ 1-2 shots/drinks
   __ I never drink liquor

b. Think carefully about all the times in the LAST THREE MONTHS that you drank any WINE (including, for example, table wine, dinner wine, dessert wine, port, or sherry).

1. In the last THREE MONTHS, how often did you drink WINE?
   __ almost everyday __ 5-6 days/wk __ 3-4 days/wk __ 1-2 days/wk
   __ 1-3 days/month __ less than once per month __ Never

Continued on back page
Important People & Activities Survey

Page 1
IMPORTANT PEOPLE AND ACTIVITIES (IPA)
(Adapted from Longabaugh, Beattie & Clifford)

SOCIAL NETWORK:

Please indicate which people you have spent the most time with in the past three months, who are at least 12 years old.

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<th>Initials (first and last)</th>
<th>1a.) Relationship</th>
<th>2a.) Sex</th>
<th>3a.) Age</th>
<th>4a.) Ethnicity</th>
<th>5a.) How important is religion?</th>
<th>6a.) Years Known</th>
<th>7a.) Method of Contact</th>
<th>8a.) Amount of Contact</th>
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Important People & Activities Survey

– This survey is 2 two-sided pages

– Please write the PN and the date in the upper right-hand corner of each page
Important People & Activities Survey

This survey is going to ask you some questions about the people with whom you have had contact during the past 3 months who have been important to you.
These people may be a spouse, other family members, friends, people from work, or anyone that you see as having had a significant impact on your life, regardless of whether or not you like them.
The people we want to know about are those with whom you've had contact in the past 3 months.
Important People & Activities Survey

• First, think of everyone with whom you have had contact in the last 3 months

• Please list the initials (first and last) of at least six of these people in the “Initials” column
  – You may list up to twelve people
Important People & Activities Survey

• Think about each person listed in the “Initials” column

• You will answer questions about their relationship to you, their gender, age, etc.

• We will provide you with instructions for answering each question

• Please take your time
1a.) Relationship

- 1 = spouse
- 2 = children
- 3 = parent
- 4 = sibling
- 5 = other family member
- 6 = roommate
- 7 = ex-intimate
- 8 = boy/girlfriend
- 9 = friend from work
- 10 = friend (social)
- 11 = drinking buddy
- 12 = friend with benefits
- 13 = co-worker
- 14 = other _______ (please explain)
2a.) Sex

- 1 = Female
- 2 = Male
3a.) Age

Example:

- 19 = 19 years
4a.) Ethnicity

- 1 = Caucasian
- 2 = African American
- 3 = Hispanic/Latino/a
- 4 = Asian American
- 5 = Other ______ (please specify)
5a.) How important is religion to this person?

- 5 = Extremely important
- 4 = Quite important
- 3 = Somewhat important
- 2 = Not very important
- 1 = Not at all important
6a.) How many years and months have you known this person?

Examples:
- 5 yr. 8 mo. = 5 years 8 months
- 7 mo. = 7 months
7a.) Overall, what is the most common method of communication with this person?

- 1 = In person
- 2 = Telephone
- 3 = Email
- 4 = Instant Messaging
- 5 = Snail mail
- 6 = Other _______ (please explain)
8a.) How often do you contact this person?

- 7 = daily (7 times a week)
- 6 = three to six times a week
- 5 = once or twice a week
- 4 = every other week
- 3 = about once a month
- 2 = less than monthly
- 1 = once in past three months
- 0 = not at all in past three months
9a.) How would you describe the drinking status of this person?

- 5 = don’t know
- 4 = problem drinker
- 3 = heavy drinker
- 2 = moderate drinker
- 1 = light drinker
- 0 = abstainer (doesn’t drink)
10a.) How often does this person drink alcohol?

- 8 = don’t know
- 7 = daily
- 6 = three to six times a week
- 5 = one or two times a week
- 4 = about every other week
- 3 = about once a month
- 2 = less often than monthly
- 1 = once in the past three months
- 0 = not in the past three months
11a.) When this person drinks, what is the most he/she has in a single day?

- 5 = don’t know
- 4 = ten or more drinks
- 3 = six to nine drinks
- 2 = three to five drinks
- 1 = one to two drinks
- 0 = none (doesn’t drink)
Important People & Activities Survey

Page 2
SOCIAL NETWORK, Additional Questions:

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<th>Initials</th>
<th>1b.) Is this person a student?</th>
<th>2b.) Where does this person live?</th>
<th>3b.) Does this person live with you?</th>
<th>4b.) Is this person a fraternity or sorority member?</th>
<th>5b.) Year in school?</th>
<th>6b.) How much can you count on this person for emotional support?</th>
<th>7b.) How much can you count on this person for advice?</th>
<th>8b.) How often do you study with this person?</th>
<th>9b.) How often do you socialize with this person?</th>
<th>10b.) What was the last thing (activity) you did with this person?</th>
<th>11b.) What activity or activities do you most often do with this person?</th>
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1b.) Is this person a student?

- 1 = yes
- 2 = no
2b.) Where does this person live?

Please indicate whether they live on or off campus.
1 = on campus
2 = off campus

Also indicate where their residence is located.
a = Wilmington area
b = In state
c = Out of state

Example: My friend lives off campus and in Wilmington.
Your response would be “2a”
3b.) Does this person live with you?

- 1 = YES, in the same dorm
- 2 = YES, in the same apartment complex
- 3 = YES, in the same house
- 4 = YES, in another dwelling
- 5 = NO, they do not live with me
4b.) Is this person in a fraternity or sorority?

- 1 = yes
- 2 = no
5b.) What year in college is this person?

- 1 = Freshman
- 2 = Sophomore
- 3 = Junior
- 4 = Senior
- 5 = Other _________ (please explain)
- 6 = Not in school
6b.) How much can you count on this person for emotional support?

- 5 = Very much
- 4 = Quite a lot
- 3 = Somewhat
- 2 = Not very much
- 1 = Not at all
7b.) How much can you count on this person for advice?

- 5 = Very much
- 4 = Quite a lot
- 3 = Somewhat
- 2 = Not very much
- 1 = Not at all
8b.) How often do you study with this person?

- 5 = Very much
- 4 = Quite a lot
- 3 = Somewhat
- 2 = Not very much
- 1 = Not at all
9b.) How often do you socialize with this person? (e.g., talking, going out, partying)

- 5 = Very much
- 4 = Quite a lot
- 3 = Somewhat
- 2 = Not very much
- 1 = Not at all
10b.) What was the last thing (activity) you did with this person?

Please list the activity. (e.g., hang out, play tennis, watch TV)
11b.) What activity or activities do you most often do with this person?

Please list each activity that you most often do with this person. (e.g., 3, 4, 6, 8)

1 = Go out to eat  
2 = See a movie  
3 = Drink alcohol  
4 = Shopping  
5 = Hang out  
6 = Watch TV  
7 = Play sports  
8 = Have a conversation  
9 = Got to get coffee/tea  
10 = Go to the beach  
11 = Sex/intimate activity  
12 = Other ____________ (please explain)
Important People & Activities Survey

Page 3
IMPORTANT PEOPLE

Of those people that you have listed, please name the 4 that you think have been the most important to you during the past 3 months.

These would be people who have had an impact on your life, whether you liked them or not.

Note: ALL QUESTIONS APPLY TO THE PAST 3 MONTHS.

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<thead>
<tr>
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<th>2(c)</th>
<th>3(c)</th>
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<tbody>
<tr>
<td>Of those people you listed, who are the most important?</td>
<td>How much have you liked this person?</td>
<td>How important has this person been to you?</td>
<td>How did this person feel about your drinking? (If you didn't drink, how would this person feel about your drinking?)</td>
</tr>
<tr>
<td>1.</td>
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</tbody>
</table>
1c.) Of those people in your social network, who are the most important?

- Please list the initials of the four most important people in your social network.

- Only list the initials of four people who you answered questions for on page 1 and page 2
2c.) How much have you liked this person?

- Please answer on a scale of 1 to 7 where,
  - 7 = Totally liked
    and
  - 1 = Totally disliked
3c.) How important has this person been to you?

- 6 = Extremely important
- 5 = Very important
- 4 = Important
- 3 = Somewhat important
- 2 = Not very important
- 1 = Not at all important
4c.) How did this person feel about your drinking? (If you didn’t drink, how would this person feel about your drinking?)

- 5 = Don’t know
- 4 = Encouraged me to drink more
- 3 = Accepted my drinking
- 2 = Neutral
- 1 = Didn’t accept my drinking
- 0 = Discouraged me from drinking at all
Important People & Activities Survey
**IMPORTANT ACTIVITIES**

The following questions are about how you spent your time in the past 3 months. This includes activities that you have spent a lot of time doing, whether you liked them or not. It also includes activities that have been important to you and the way you live, even if you spent less time doing them. Other people, such as those you have listed previously, may have participated in these activities with you, but they may also be activities that you did alone. For example, the activities may be your work, doing housework, looking for a job, a campus activities club, Sunday dinner with your family, working on your car or in your garden, or whatever else you identify as activities that are important to you.

<table>
<thead>
<tr>
<th>1d.)</th>
<th>2d.)</th>
<th>3d.)</th>
<th>4d.)</th>
<th>5d.)</th>
<th>6d.)</th>
<th>7d.)</th>
<th>8d.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>List below the activities which you spend a lot of time doing, or activities you did, perhaps spending less time, but which were important to you and the way you lived.</td>
<td>About how many hours did you spend each week on this activity in the past 3 months?</td>
<td>How much have you liked this activity?</td>
<td>How important has this activity been?</td>
<td>How often did you drink alcohol during this activity?</td>
<td>How often did others present drink alcohol during this activity?</td>
<td>If applicable, which important person(s) also spent time with you during this activity?</td>
<td>How often did your important person(s) spend time with you during this activity?</td>
</tr>
</tbody>
</table>

*Note: List at least four activities*
Important Activities

• The following questions are about how you spent your time in the past 3 months. This includes activities that you have spent a lot of time doing, whether you liked them or not. It also includes activities that have been important to you and the way you live, even if you spent less time doing them.

• Other people, such as those you have listed previously, may have participated in these activities with you, but they may also be activities that you did alone.

• For example, the activities may be your work, doing housework, looking for a job, a campus activities club, Sunday dinner with your family, working on your car or in your garden, or whatever else you identify as activities that are important to you.
1d.) List the activities which you spend a lot of time doing, or activities you did, perhaps spending less time, but which were important to you and the way you lived.

- *Note:* List at least four activities.

- *Please indicate if the activity is:*
  - 1=Work for school
  - 2=Work for pay
  - 3=Not school related
2d.) About how many hours did you spend each week on this activity, in the past 3 months?

Example:

7 = 7 hours
3d.) How much have you liked this activity?

- Please answer on a scale of 1 to 7 where,

- 7 = Totally liked
  and
- 1 = Totally disliked
4d.) How important has this activity been?

- 5 = Extremely important
- 4 = Very important
- 3 = Important
- 2 = Somewhat important
- 1 = Not very important
- 0 = Not at all important
5d.) How often did you drink alcohol during this activity?

- 5 = Always
- 4 = Usually
- 3 = Often
- 2 = Sometimes
- 1 = Rarely
- 0 = Never
6d.) How often did others drink alcohol during this activity?

- 6 = Others not present
- 5 = Always
- 4 = Usually
- 3 = Often
- 2 = Sometimes
- 1 = Rarely
- 0 = Never
7d.) If applicable, which important person (people) also spent time with you during this activity?

- Refer back to page 3

- Use initial/initials corresponding to important person/people listed on page 3

- If no one spent time with you, please write “N/A”
8d.) How often did your important person (people) spend time with you during this activity?

- 6 = Always
- 5 = Usually
- 4 = Often
- 3 = Sometimes
- 2 = Rarely
- 1 = Never
- 0 = Others not present
Social Support Questionnaire

– This survey is 1 page

– Please sit quietly once you have finished, we will continue shortly
Social Support Questionnaire (Short Form)

1.) Whom can you really count on to be dependable when you need help?
   No one 1) 4) 7) 10) 2) 5) 8) 11) 3) 6) 9) 12)

2.) Overall, how satisfied are you with this support?
   6 - very satisfied 5 - fairly satisfied 4 - a little satisfied 3 - a little dissatisfied 2 - fairly dissatisfied 1 - very dissatisfied

3.) Whom can you really count on to help you feel more relaxed when you are under pressure or tense?
   No one 1) 4) 7) 10) 2) 5) 8) 11) 3) 6) 9) 12)

4.) Overall, how satisfied are you with this support?
   6 - very satisfied 5 - fairly satisfied 4 - a little satisfied 3 - a little dissatisfied 2 - fairly dissatisfied 1 - very dissatisfied

5.) Who accepts you totally, including both your worst and your best points?
   No one 1) 4) 7) 10) 2) 5) 8) 11) 3) 6) 9) 12)

6.) Overall, how satisfied are you with this support?
   6 - very satisfied 5 - fairly satisfied 4 - a little satisfied 3 - a little dissatisfied 2 - fairly dissatisfied 1 - very dissatisfied

7.) Whom can you really count on to care about you, regardless of what is happening to you?
   No one 1) 4) 7) 10) 2) 5) 8) 11) 3) 6) 9) 12)

8.) Overall, how satisfied are you with this support?
   6 - very satisfied 5 - fairly satisfied 4 - a little satisfied 3 - a little dissatisfied 2 - fairly dissatisfied 1 - very dissatisfied

9.) Whom can you really count on to help you feel better when you are feeling generally down-in-the-dumps?
   No one 1) 4) 7) 10) 2) 5) 8) 11) 3) 6) 9) 12)

10.) Overall, how satisfied are you with this support?
    6 - very satisfied 5 - fairly satisfied 4 - a little satisfied 3 - a little dissatisfied 2 - fairly dissatisfied 1 - very dissatisfied

11.) Whom can you count on to console you when you are very upset?
    No one 1) 4) 7) 10) 2) 5) 8) 11) 3) 6) 9) 12)

12.) Overall, how satisfied are you with this support?
    6 - very satisfied 5 - fairly satisfied 4 - a little satisfied 3 - a little dissatisfied 2 - fairly dissatisfied 1 - very dissatisfied
Social Support Questionnaire

– The following questions ask about people in your environment who provide you with help or support. Each question has two parts.
Social Support Questionnaire

– For the first part, list all the people you know, excluding yourself, whom you can count on for help or support in the manner described.

– Give the persons’ initials.

– Do not list more than one person next to each of the numbers beneath the question.

– For the second part, circle how satisfied you are with the overall support you have.
Social Support Questionnaire

- If you have had no support for a question, circle the words “No one,” but sill rate your level of satisfaction.

- Do not list more than twelve persons per question. You may only list those people who are in your social network.

- Please answer all the questions as best you can.
Social Support Questionnaire

EXAMPLE:

Whom do you know whom you can trust with information that could get you in trouble?
No one 1) TS 4) AP 7) 10)
2) SK 5) NH 8) 11)
3) JL 6) 9) 12)

Overall, how satisfied are you with this support?

6 - very satisfied 5 - fairly satisfied 4 - a little satisfied 3 - a little dissatisfied 2 - fairly dissatisfied 1 - very dissatisfied
Debrief

— This study aims to better understand alcohol use among college students in their social networks

— Your participation in this study is very helpful and we appreciate your cooperation

— Please contact David Pinsky (djp7615@uncw.edu) or Nora E. Noel, Ph.D. (noeln@uncw.edu) with any further questions
Thank you!