



ATTACHMENT STYLES AND PERCEPTIONS OF ALCOHOL CONSUMPTION  
IN A COLLEGE POPULATION

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ATTACHMENT STYLES AND PERCEPTIONS OF ALCOHOL CONSUMPTION  
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## **ABSTRACT**

The investigators sought to explore the correlation between attachment style and alcohol consumption that has been highlighted by previous researchers (McNally, Palfai, Levine, & Moore, 2003; De Rick, Vanheule, & Verhaeghe, 2009; Tops, Koole, Ijzerman, & Buisman-Pijlman, 2014). Specifically, the current study measured factors such as current alcohol use levels, estimated alcohol use levels of peers, motivations for consuming alcohol, and self-esteem in a college population. The current study was not able to reestablish the correlation between insecure attachment styles and increased alcohol consumption. However, alcohol consumption was found to have several significant positive correlations with social motivations, coping motivations, enhancement motivations, and estimated alcohol use of peers. Additionally, the current study found that, on average, participants estimated their peers' levels of alcohol consumption to be almost five times higher than the amount of alcohol that they personally consumed. Among other implications discussed, the results could guide university staff members in creating underage drinking prevention initiatives.

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## INTRODUCTION

In 2012, an estimated 22.2 million Americans over the age of twelve were diagnosed as having a substance abuse disorder according to the 2012 National Survey on Drug Use and Health (NSDUH) conducted by the Substance Abuse and Mental Health Service Administration (SAMHSA, 2013). Because of the prevalence of substance abuse, contributing factors to these disorders need to be studied. One of these factors is an insecure attachment style (De Rick, Vanheule & Verhaeghe, 2009; Tops, Koole, IJzerman and Buisman-Pijlman, 2014).

McNally, Palfai, Levine, and Moore (2003) conducted research using a self-report survey and found that insecure attachment styles that have a negative model of self (i.e. preoccupied and fearful attachment styles) made an individual more likely to consume alcohol as a coping mechanism. They also found that these individuals experienced a greater number of drinking related consequences than did their peers, and that those drinking related consequences could not be attributed completely to the amount of alcohol the individual consumed (McNally et al., 2003).

De Rick and colleagues (2009) conducted a study on patients being treated for alcoholism and found that alcoholism does not cause an insecure attachment style, but rather the attachment style was present before the individuals exhibited substance use problems. Being able to create social attachments helps reduce stress, reduce anxiety, increase mental

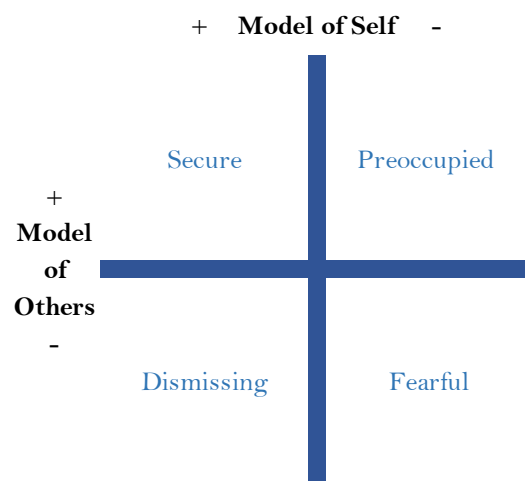
health, and increase levels of oxytocin and it also promotes regulating behavior (De Rick et al., 2009; Tops et al., 2014). According to one theory, when the need for social attachments goes unmet substances, such as alcohol, are used in order to cope (De Rick et al., 2009).

A second theory has been proposed to explain the correlation between attachment style and increased levels of alcohol misuse. It notes that an insecure attachment style could have the evolutionary function of creating a personality of high novelty seeking, also called the sensation seeking personality trait, which would be beneficial to people in a high risk and low predictable environment (Tops et al., 2014). Levels of high novelty seeking are associated with low trust, high numbers of partners, perception of risk in intimacy, and infidelity (Tops et al., 2014). It is also associated with more experimentation with drugs and alcohol (Tops et al., 2014).

### **Attachment Styles**

John Bowlby was the first researcher to present a model for attachment theory (Cooper, Shaver & Collins, 1998). Bowlby suggested that infants create working models of themselves and of their caregivers that they then use as a prototype for other future relationships (Bartholomew & Horowitz, 1991; Cooper et al., 1998). Mary Ainsworth went on to develop categories, also called attachment styles, to describe three different types of attachment in children utilizing an experimental model known as the “Strange Situation” (Cooper et al., 1998). A study conducted by Hazan and Shaver in 1987 suggested that these childhood attachment patterns can be seen in adult romantic and peer relationships as well

(Bartholomew & Horowitz, 1991; Cooper et al., 1998). In 1991, Bartholomew and Horowitz suggested a four category model based on Bowlby's theory. The current study utilized Bartholomew and Horowitz's model when classifying participants into secure, preoccupied, fearful and dismissing attachment styles (see Figure 1).



**Figure 1: Attachment Style Model**  
Adapted from Bartholomew and Horowitz, 1991

**Secure Attachment Style.** Individuals with secure attachment styles exhibit both a positive model of self and a positive model of others (Bartholomew & Horowitz, 1991). They tend to report a sense of worthiness and in general feel as if others are accepting of them (Bartholomew & Horowitz, 1991). According to Bartholomew and Horowitz (1991), individuals with a secure attachment style would strongly agree with the following sentiments: “It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don’t worry about being alone or having others not accept me.” The majority of individuals have a secure attachment style, and

those who don't (whether they possess a preoccupied, dismissing, or fearful attachment style) are generalized as having an insecure attachment style (Cooper, Shaver & Collins, 1998).

**Preoccupied Attachment Style.** Individuals with a preoccupied attachment style exhibit a negative model of self and a positive model of others (Bartholomew & Horowitz, 1991). They feel a sense of unworthiness but view others in a positive light (Bartholomew & Horowitz, 1991). These characteristics often prompt an individual with a preoccupied attachment style to constantly strive for acceptance from others in order to obtain self-acceptance (Bartholomew & Horowitz, 1991). According to Bartholomew and Horowitz (1991), individuals with a preoccupied attachment style would agree with the following sentiments: "I want to be emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them."

**Fearful Attachment Style.** Individuals with a fearful attachment style exhibit a negative model of self and a negative model of others (Bartholomew & Horowitz, 1991). They feel a sense of unworthiness along with a distrust of others. Individuals with this attachment style generally try to avoid close relationships in order to protect themselves from rejection (Bartholomew & Horowitz, 1991). According to Bartholomew and Horowitz (1991), an individual with a fearful attachment style would agree with the following sentiments: "I am uncomfortable getting close to others. I want emotionally close relationships but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become close to others."

**Dismissing Attachment Style.** Individuals with a dismissing attachment style exhibit a positive model of self but negative model of others (Bartholomew & Horowitz, 1991). They have a sense of worthiness but are distrusting of others. Individuals with this attachment style generally try to avoid close relationships in order to protect themselves from disappointment (Bartholomew & Horowitz, 1991). According to Bartholomew and Horowitz (1991), an individual with a dismissing attachment style would agree with the following sentiments: “I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.”

### **Prevalence of Alcohol Consumption**

Alcohol, when consumed moderately, may have positive effects on health. When abused, however, alcohol can be dangerous and distressing to individuals and their loved ones. Alcohol is the fourth leading preventable cause of death in the United States, killing nearly 88,000 people a year (National Institute on Alcohol Abuse and Alcoholism [NIAAA], 2016a). Alcohol is responsible for 31% of driving fatalities, 48% of cirrhosis deaths, 45.8% of liver disease deaths, and increased rates of various cancers (NIAAA, 2016a). In total, alcohol contributes to the prevalence of over 200 different health conditions (NIAAA, 2016a).

In a survey conducted in 2014 by Substance Abuse and Mental Health Services Administration 56.9% of people over the age of 18 reported that they had consumed alcohol

in the last month (SAMHSA, 2015). In the same survey, 24.7% of adults reported they engaged in binge drinking in the past month (NIAAA, 2016a). Additionally, 6.7% of adults reported they have engaged in heavy drinking in the past month (NIAAA, 2016a).

Alcohol misuse can have serious other implications in both the United States and worldwide. Alcohol misuse cost the United States \$249 billion in 2010 (NIAAA 2016a). Globally, alcohol consumption was attributed to be the cause of 5.1% of the burden of disease and injury (NIAAA 2016a). Between the ages of 15 and 49, alcohol misuse is the leading risk factor for early death and disabilities worldwide (NIAAA, 2016a). One-fourth of deaths between the ages of 20 and 39 are alcohol related (NIAAA, 2016a). For these reasons it is important to study factors contributing to alcohol use.

**Alcohol Consumption in Special Demographics.** According to the National Institute of Alcohol Abuse and Alcoholism 35% of teens have had at least one drink by the age of fifteen, and that statistic nearly doubles to 65% by the time they reach eighteen (NIAAA, 2016b). Underage drinkers between age twelve and age twenty consume 11% of all alcohol in the United States (NIAAA, 2016b). Additionally, 94% of teenage participants in one survey indicated that the last time they consumed alcohol they got it for free (NIAAA, 2016b). Ninety percent of alcohol consumed by this demographic is by binge drinking (NIAAA, 2016b). It is important to restrict the alcohol use of underage drinkers for numerous reasons. Alcohol can interfere with brain development by causing cognitive impairments and could make the drinker more prone to alcohol dependence (NIAAA, 2016b). Consuming excessive alcohol as an adolescent is also thought to be the cause of neuropsychological



deficits in visual-spatial cognition, visual-motor coordination, episodic memory, executive abilities, and recognition of emotional facial expressions (Quaglino, Wever & Maurage, 2015). Underage drinking is also estimated to be a factor in the deaths of 4,358 and 188,000 injuries of young people a year (NIAAA, 2016b).

College students are also in a demographic where alcohol consumption causes concerns. College students report higher rates of binge drinking and a higher prevalence of driving while intoxicated than their non-college-attending peers (NIAAA, 2015b). It is thought that 20% of college students meet the criteria for an Alcohol Use Disorder (AUD) (NIAAA, 2015b). This increased level of binge drinking can result in repercussions such as academic consequences, suicide attempts, alcohol poisoning, health problems, unsafe sex, injuries, assault, sexual assault, vandalism, property damage, and involvement with the police (NIAAA, 2015b).

The elderly is also a demographic where alcohol consumption causes concern. Roughly 1/3 of elderly adults regularly consume alcohol and 1-3% of the elderly population qualifies for an AUD (Novier, Diaz-Granados & Matthews, 2015). However, it is commonly believed that many elderly individuals with AUDs never get diagnosed and are therefore statistically underrepresented (Novier et al., 2015). The elderly population is often motivated by life changing events (i.e. retirement, loss of income, and death of loved ones) which causes a different pattern of drinking behavior than that seen in their younger counterparts (Novier et al., 2015). Alcohol use in the elderly is associated with neural damage, occurrence of dementia, vulnerability to falling, and compromised immune systems (Novier et al., 2015).

It also takes much less alcohol for an elderly individual's blood alcohol content to rise (Novier et al., 2015).

Additionally, there are gender differences when it comes to risks and prevalence of AUDs. Males are significantly more likely to have alcohol related problems, but women advance to alcoholism more rapidly than men (Erol & Karpyak, 2015). For women, predicting factors for alcoholism are early-onset anxiety disorders, familial history, and nicotine dependence. For men, predicting factors for alcoholism are novelty seeking, sexual abuse, neuroticism, conduct disorder, parental loss, and low marital satisfaction (Erol & Karpyak, 2015). It is also important to note that women who have AUDs have more medical and comorbid psychiatric problems than men with AUDs, but fortunately they tend to seek treatment sooner and have better results (Erol & Karpyak, 2015).

### **Classification of Alcohol Consumption**

**Binge Drinking.** Binge drinking is a pattern of drinking where a person's blood alcohol concentration exceeds 0.08 g/dL according to the NIAAA (2016b). Typically, this occurs after four drinks in women and five in men (NIAAA, 2016b). For children and elderly this amount of alcohol will be even lower (NIAAA, 2016b). The Substance Abuse and Mental Health Services Administration defines binge drinking using slightly less precise measures (NIAAA, 2016a). They report binge drinking as five or more drinks on at least one occasion in the last thirty days (NIAAA, 2016a).

**Alcohol Use Disorder.** Alcohol use disorder is a medical diagnosis for severe problem drinking that causes distress or harm to an individual (NIAAA, 2015a). It replaced alcohol dependence and alcohol abuse in the DSM-V (NIAAA, 2015a). According to the DSM-V there are three levels of alcohol use disorder: mild, moderate, and severe (NIAAA, 2015a). It is estimated that 17 million adults and 855,000 adolescents had an AUD in the United States in 2012 (NIAAA, 2015a). Only 7-9% of people suffering from an AUD are estimated to receive treatment (NIAAA, 2016a).

**Heavy Drinking.** According to Substance Abuse and Mental Health Services Administration, the definition of heavy drinking is drinking five or more standard drinks on five or more occasions in the last thirty days (NIAAA, 2016a).

**Moderate Drinking.** The 2015-2020 *Dietary Guidelines for Americans* defines moderate drinking as up to one drink a day for women and two drinks a day for men (U.S. Department of Agriculture and U.S. Department of Health and Human Services, 2010). It is thought that moderate alcohol consumption can benefit health by decreasing risks of heart disease, ischemic stroke, and diabetes (NIAAA, 2016a). In the year 2005, it is estimated that moderate alcohol consumption prevented 26,000 deaths (NIAAA, 2016a).

### **Perceptions of Alcohol Consumption in College Students**

It is important to examine the perceptions about peers' drinking behavior among college students. It is thought that perceptions of peers' drinking behavior are a causal factor for an individual's drinking behavior (Martens, Page, Mowry, Damann, Taylor & Cimini,

2006). Research has shown that college students have a tendency to overestimate the quantity and frequency of drug use, sexual activities, and especially the alcohol consumption of their peers (Perkins, Meilman, Leichliter, Cashin & Presley, 1999; Martens et al., 2006). This exaggerated peer norm is thought to be due to several different factors.

One factor is a flaw in attribution processes (Perkins et al., 1999). Individuals tend to prefer to attribute behavior to a tendency or personality factor rather than to situational factors. For example, if an individual sees a classmate drinking at a bar on a weeknight he or she might assume on first impulse that the classmate is a heavy drinker rather than they are blowing off steam because they think they failed a test that day. However, it is just as likely, if not more likely, the opposite is true (Perkins et al., 1999).

Another factor is an individual's memories. Memories that include unusual behavior are more easily recalled than those in which behavior is typical (Martens et al., 2006). Individuals then, often incorrectly, assume that whatever behavior they have more vivid memories of is the behavior that happens most frequently. For example, an individual is more likely to vividly remember a number of nights in a semester where his or her roommate came back incredibly drunk and made a fool of himself or herself than he or she is to remember the dozens of nights where the roommate came back sober.

A final factor thought to skew the perceptions of college students in the United States is culture (Martens et al., 2006). It is a widely held belief in American culture that college students, especially those that are in Greek life or on an athletic team, are extremely heavy

drinkers. The media espouses this perception and creates shows and movies in which college students practice frequent and risky drinking behaviors. Individuals are then desensitized to this misuse of alcohol from a young age. They do not question this perception since they are exposed to it on such a regular basis.

### **Motivating Factors for Alcohol Consumption**

Theories of motivations for alcohol consumption typically rely on two premises. First is that an individual drinks alcohol to obtain a certain outcome and the second is that an individual drinks alcohol in order to serve a need or function (Cooper, 1994). The motivations behind alcohol consumption are important to study because they provide insight into the circumstances an individual will consume alcohol in, how much the individual is likely to consume, and what the possible/probable consequences are (Cooper, 1994). The current study uses Cox and Klinger's (1988) four-factored model to determine if the participants consume alcohol due to social, enhancement, coping, or conformity motivations.

**Social Motivation.** Social motivation is externally generated by positive reinforcement (Cooper, 1994). In other words, individuals who consume alcohol due to social motivations would likely say they drink because it improves a party and/or because it makes them more sociable (Cooper, 1994). Social motivations for drinking are positively correlated with frequency and quantity of alcohol consumption (Cooper, 1994). They are also positively correlated with drinking in celebratory situations and negatively correlated with drinking in a home environment (Cooper, 1994).

**Enhancement Motivation.** Enhancement motivation is internally generated by positive reinforcement (Cooper, 1994). In other words, individuals who consume alcohol due to enhancement motivations would likely admit to drinking because they like the feeling and/or because it is fun (Cooper, 1994). Enhancement motivations for drinking are positively correlated with the quantity and frequency of alcohol consumption (Cooper, 1994). They are also positively correlated with drinking in situations where heavier drinking is acceptable, such as in a bar with friends (Cooper, 1994).

**Conformity Motivation.** Conformity motivation is externally generated by negative reinforcement (Cooper, 1994). In other words, individuals who are motivated by conformity would likely say they consume alcohol in order to fit in and/or because their friends pressure them to drink. Conformity motivations are negatively correlated with frequency and quantity of drinking but positively correlated with drinking problems (Cooper, 1994). Additionally, they are negatively related with drinking at bars and at home but positively correlated with drinking at a party (Cooper, 1994).

**Coping Motivation.** Coping motivation is internally generated by negative reinforcement (Cooper, 1994). In other words, individuals who consume alcohol due to coping motivations would likely admit to drinking because it helps them when they are in a bad mood and/or to forget their problems. Coping motivations are positively correlated to quantity and frequency of alcohol consumption (Cooper, 1994). They are also positively related to drinking at home alone (Cooper, 1994).

## **Research Questions and Hypotheses**

Based on the literature, the hypotheses and research questions listed below were formulated:

**Hypothesis 1:** It was predicted that participants who reported an insecure attachment style would report greater alcohol consumption than those who reported a secure attachment style.

**Hypothesis 2:** It was predicted that participants who reported insecure attachment styles would indicate that they consume alcohol due to coping and social motivations significantly more often than participants with secure attachment styles.

**Research Question 1:** Is there a difference in the perceptions of peers' drinking behaviors depending on attachment style?

**Research Question 2:** Is there a correlation between self-esteem scores and drinking motivations.

## METHOD

### Participants

The current study recruited 188 undergraduate students at Angelo State University. Participants were offered course credit or extra credit for their participation. Forty of the data sets were omitted due to incomplete responses. The remaining participants' age ranged from 17 to 44 ( $M = 20.09$ ,  $SD = 3.47$ ) (see Table 1). The majority of the participants were women (83.8%) and most identified as Caucasian (see Table 2).

Age	Frequency	Percent
17	2	1.4
18	46	31.1
19	38	25.7
20	25	16.9
21	12	8.1
22	12	8.1
23	4	2.7
25	1	0.7
26	2	1.4
29	1	0.7
30	2	1.4
35	1	0.7
36	1	0.7
44	1	0.7
Total	148	100

**Table 1: Age**



Race/Ethnicity	Frequency	Percent
Caucasian	93	62.80%
African American	9	6.10%
Hispanic or Latina/Latino	36	24.30%
Asian or Asian American	6	4.10%
Native Indian	1	0.70%
Other	2	1.40%
No Answer	1	0.70%
Total	148	100%

**Table 2: Demographics**

Most participants identified themselves as college freshmen (37.8%). This is likely because research participation is a component in many freshmen level general psychology courses at Angelo State University. Only 10.8% of participants indicated they were a member of a fraternity or sorority and only 6.8% of participant indicated they were athletes. A large percentage of participants reported their grade point average to be between 3.1 - 3.5 on a 4.0 scale (See Table 3).

Grade Point Average	Frequency	Percent
1.6 - 2.0	2	1.40%
2.1 - 2.5	12	8.10%
2.6 - 3.0	31	20.90%
3.1 - 3.5	67	45.30%
3.6 - 4.0	36	24.30%
Total	148	100%

**Table 3: Grade Point Average**

## Materials

The current study used the following instruments: Demographics Questionnaire, Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991), Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965), Alcohol Use Disorder Identification Test (AUDIT; WHO, 1992), a modified version of the Alcohol Use Disorder Test, and Drinking Motivations Questionnaire-Revised (DMQR; Cooper, 1994).

**Demographics Questionnaire.** This questionnaire (see Appendix A) consisted of two sections. The first section of the questionnaire asked participants to provide their age, gender, ethnicity, and year in college. The second demographic section asked if the participants were members of a fraternity, sorority, or athletic team on campus.

**Relationship Questionnaire.** The 4-item Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991) measured attachment style (see Appendix B). This questionnaire lists four statements describing how the participant might feel about his or her relationships. A sample item includes, “I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.” The participants first select the statement that they most agree with, and then rate all four on a 7-point Likert scale (one equals not like me, seven equals very much like me). This questionnaire assesses how the participants ranked themselves on a secure, dismissing, fearful or preoccupied attachment style scale. In order to make an attachment style profile, four category scores were created by

splitting the median to determine if the participant had high or low aspects of that attachment style.

**Rosenberg Self-Esteem Scale.** The 10-item Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) was used to measure the participants' self-esteem (see Appendix C). A sample item includes, "I take a positive attitude toward myself." Participants are asked to rate these items on a 4-point Likert scale (one equals strongly agree, four equals strongly disagree). A single score was determined by reverse scoring selected items and adding them to the scores of the remaining items as indicated by the instructions for using this instrument.

**Alcohol Use Disorder Identification Test.** This 10-item Alcohol Use Disorder Identification Test (AUDIT; WHO, 1992) was used to determine the participants' habitual levels of alcohol consumption (see Appendix D). Participants were asked about the frequency, quantity, and consequences of their drinking behavior. Each question was rated on different scales. A sample item includes "How many drinks containing alcohol do you have on a typical day when you are drinking?" with the answer choices of "1 or 2," "3 or 4," "5 or 6," "7, 8, or 9," and "10 or more." Another sample item includes, "How often do you have six or more drinks on one occasion?" with the answer choices of "never," "less than monthly," "monthly," "weekly," and "daily or almost daily." A single score was determined by adding up the numbers associated with each answer option chosen as indicated in the instructions for the instrument.

**Modified Version of the Alcohol Use Disorder Identification Test.** This 10-item questionnaire was used to measure the participants' perceptions of their peers' alcohol use (see Appendix E). This questionnaire was based off of the AUDIT; however, the researchers reworded the questions to change the subject to "the average college student" rather than the participant themselves. Participants were asked about their perceptions of the frequency, quantity, and consequences of their peers' drinking behavior. Each question was rated on different scales. A sample item includes "How many drinks containing alcohol do you think the average college student has on a typical day when he/she is drinking?" with the answer choices of "1 or 2," "3 or 4," "5 or 6," "7, 8, or 9," and "10 or more". Another sample item includes "How often do you think the average college student has six or more drinks on one occasion?" with the answer choices of "never," "less than monthly," "monthly," "weekly," and "daily or almost daily." A single score was obtained in an identical manner as in the AUDIT.

**Drinking Motivations Questionnaire-Revised.** The 20-item Drinking Motives Questionnaire-Revised (DMQR; Cooper, 1994) was used to measure motivations for alcohol consumption (see Appendix F). The participants were asked to rate twenty drinking motivations using a 5-point Likert scale (one equals almost never/never, five equals almost always/always). A sample item includes "You drink to forget your worries." This test determines what level of social, coping, enhancement, or conformity motivations the participant reports for drinking. A score was obtained for each motivation (four scores in total) by adding the scores indicated for associated items.

## **Procedure**

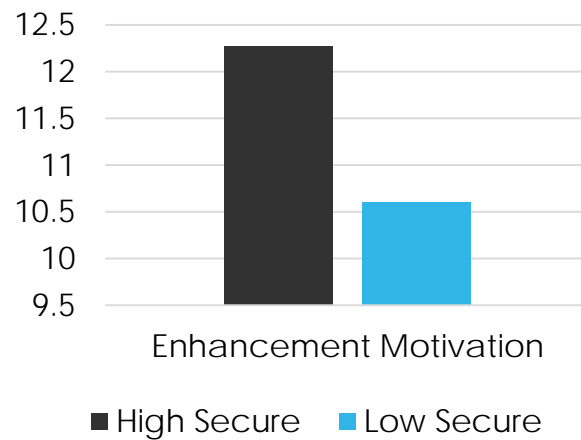
Before the study began, it was approved by the Institutional Review Board and received funding from an undergraduate faculty-mentored research grant. A link to the study was posted on Angelo State University's Sona-Systems website. Participants were able to select the study on Sona, and if they chose to participate, were linked to the study on Psychdata's website. The study was conducted completely online through Psychdata, a secure research host site.

When the participants selected the link to the study, they were presented with a consent form that assured them that all their responses would be kept confidential and that if the participants indicated on the surveys that they participated in any illegal activities (such as underage drinking) it would not be considered a confession of criminal activities. After giving consent, participants were asked to complete section one of the Demographics Questionnaire. Next, participants were given the Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991). Then, the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) was administered. Afterwards, participants were provided with the Alcohol Use Disorder Identification Test (AUDIT; WHO, 1992) and a modified version of the Alcohol Use Disorder Test. Next, the participants were asked to complete the Drinking Motivations Questionnaire-Revised (DMQR; Cooper, 1994). Then, section two of the Demographics Questionnaire was administered. Finally participants were presented with a debriefing statement.

## RESULTS

An independent samples t-test was performed comparing participants who indicated that they had a highly Secure Attachment Style and participants who indicated they did not have a highly Secure Attachment Style. Individuals who scored themselves as highly Secure ( $M = 3.82$ ,  $SD = 3.54$ ,  $N = 66$ ) did not have a reliably different score than those who scored themselves lowly ( $M = 4.65$ ,  $SD = 5.13$ ,  $N = 82$ ). Pearson bivariate correlations conducted on these data sets also did not find significant negative correlation in the relationship between a Secure Attachment Style and Alcohol Consumption  $r = -0.092$ ,  $p > .05$ .

A Multivariate Analysis of Variance (Secure Attachment Style vs Dismissive Attachment Style vs Preoccupied Attachment Style vs Fearful Attachment style) was conducted on Social, Enhancement, Coping and Conformity Motivations for Alcohol Consumption. Wilks lambda indicated it as non-significant  $F(4,127) = 1.17$ ,  $p > .05$ . However, a significant univariate main effect was found for Enhancement Motivation  $F(1,130) = 4.63$ ,  $p < .05$  (see Figure 2). Participants who rated themselves as having a High Secure Attachment Style ( $M = 12.27$ ,  $SD = 5.04$ ) were more likely to consume alcohol for Enhancement Motivations than those who reported having a Low Secure Attachment Style ( $M = 10.60$ ,  $SD = 5.08$ ). A significant main effect was also found in participants who reported they had both a High Secure and High Fearful Attachment Style with Coping ( $M = 10.29$ ,  $SD = 6.03$ )  $F(1,130) = 5.33$ ,  $p < .05$ ; Conformity ( $M = 8.79$ ,  $SD = 6.19$ )  $F(1,130) = 4.72$ ,  $p < .05$ ; and Social Motivations ( $M = 15.71$ ,  $SD = 6.66$ )  $F = 5.58$ ,  $p < .05$  for Alcohol Consumption.



**Figure 2: Significant MANOVA ( $p < .05$ ) Finding**

Pearson Bivariate Correlation Analysis (see Table 4) revealed that several relevant significant correlations exist between Motivations and levels of Alcohol Consumption. One of these relevant significant positive correlations was a moderate correlation between Social Motivations and Alcohol Consumption,  $r = .579$ ,  $p < .01$ . Participants who were likely to report higher Social Motivations ( $M = 13.45$ ,  $SD = 6.27$ ) were also likely to report higher Alcohol Consumption ( $M = 4.27$ ,  $SD = 4.50$ ). Another positive moderate correlation was found between Coping Motivations and Alcohol Consumption,  $r = .529$ ,  $p < .01$ . Participants that were likely to report higher Coping Motivations ( $M = 9.43$ ,  $SD = 6.27$ ) were also likely to report higher Alcohol Consumption ( $M = 4.27$ ,  $SD = 4.50$ ). Additionally, a moderate correlation was found between Enhancement Motivations and Alcohol Consumption,  $r =$

.549,  $p < .01$ . Participants who reported high levels of Enhancement Motivation ( $M = 10.88$ ,  $SD = 5.07$ ) were also likely to report higher levels of Alcohol Consumption.

Social ( $M = 13.45$ ,  $SD = 6.27$ ), Coping ( $M = 9.43$ ,  $SD = 6.27$ ), and Enhancement Motivations ( $M = 10.88$ ,  $SD = 5.07$ ) were also weakly correlated to Estimated Alcohol Consumption of Peers ( $M = 19.99$ ,  $SD = 6.14$ ). Participants who consumed alcohol due to Social Motivations estimated that their peers consumed slightly more alcohol in general  $r = .205$ ,  $p < .05$ . Participants who consumed alcohol due to Coping Motivations estimated that their peers consumed slightly more alcohol  $r = .202$ ,  $p < .05$ . Participants that indicated that they consumed alcohol for Enhancement Motivations estimated that in general their peers consumed slightly more alcohol  $r = .252$ ,  $p < .01$ . However, there were no relevant correlations found between Attachment Styles and Estimated Alcohol Consumption of Peers



	Secure Attachment Style	Fearful Attachment Style	Preoccupied Attachment Style	Dismissive Attachment Style	Social Motivation	Coping Motivation	Enhancement Motivation	Conformity Motivation	Self Esteem	Personal Alcohol Use	Perceived Alcohol Use of Others
Secure Attachment Style	1	-.269**	-0.067	-0.087	-0.035	-0.12	0.094	-0.013	0.1	-0.092	-0.018
Fearful Attachment Style		1	-0.044	-0.131	0.045	0.036	-0.029	0.005	-.170*	-0.029	0.002
Preoccupied Attachment Style			1	-.253**	0.133	0.141	.167*	0.136	-0.124	0.103	0.16
Dismissive Attachment Style				1	-0.129	0.01	-0.023	-0.053	0.107	-0.138	0.034
Social Motivation					1	.716**	.796**	.473**	-0.082	.579**	.205*
Coping Motivation						1	.640**	.564**	-0.07	.529**	.202*
Enhancement Motivation							1	.407**	-0.051	.549**	.252**
Conformity Motivation								1	-0.096	0.16	0.077
Self Esteem									1	-0.022	-0.003
Personal Alcohol Use										1	.208*
Perceived Alcohol Use of Others											1

\*Correlation significant at the .05 level (2-tailed)  
\*\*Correlation Significant at the .01 level (2-tailed)

**Table 4: Correlations**

Descriptive statistics reveal a large discrepancy between self-reported levels of Alcohol Consumption ( $M = 4.28$ ,  $SD = 4.50$ ) and Estimated Alcohol Consumption of Peers ( $M = 19.99$ ,  $SD = 6.14$ ). This means that, on average, the participants in this study estimated that their peers consumed 4.67 times the amount of alcohol that the participants admit to consuming. There is also a significant weak positive correlation between Alcohol Consumption and Estimated Alcohol Consumption of Peers,  $r = .208$ ,  $p < .05$ .

There were no relevant correlations found between Motivating factors and Self Esteem. The only factor that was found to be correlated to Self-Esteem was a Fearful Attachment Style,  $r = -.170$ ,  $p > .05$ . This finding is not relevant, however, because by definition a Fearful Attachment Style includes a negative model of self.

## CONCLUSION

The current findings were unable to establish a correlation between alcohol use and an insecure attachment style. This potentially could be because the majority of participants (75%) were under the legal drinking age of twenty-one. It is possible that these scores could have been influenced by the fact that alcohol was not as available to these participants since they cannot obtain it legally. Additionally, the results might not be representative of the entire population because 83.8% of participants were female. Globally, men tend to drink alcohol more frequently and consume more alcohol in one episode of drinking (Erol & Karpyak, 2015). The extremely high representation of females in the data may be unrepresentative of the population at Angelo State University. Another factor could have been socially desirable responding. The current researcher took precautions in order to reduce socially desirable responding by administering the questionnaires online and by clarifying in the IRB approved consent form that “any admission to illegal activity (such as underage drinking) does not mean that you confessed any criminal activity”; however, it is possible that socially desirable responding still occurred. Future research should target an audience of students who are of the legal drinking age or take additional precautions (i.e., waiting until after the survey is complete to ask for the participants’ age) in attempt to prevent socially desirable responding.

One previous and well-accepted theory (that was noted in the introduction) was that attachment style directly affects motivation which leads to increased alcohol use. The current study, however, did not support this result. This research indicates that participants with

insecure attachment styles were not more likely to consume alcohol for social or coping motivations. It did find that motivations were related to alcohol consumption without being related at all to attachment style. Interestingly enough, all of the motivations besides conformity were related to increased alcohol consumption. Conformity has been a major focus in many alcohol use prevention programs, so the current research could contribute to a better understanding of how to make these programs more effective.

Every participant in this study indicated that his or her peers consumed a substantial amount more than him or her which is consistent with other studies on this topic. One of the research questions for this study was “Is there a difference in the perceptions of peers’ drinking behaviors depending on attachment style?” and according to these data the answer is no. However, this estimation was found to be correlated with other factors. Participants who consumed alcohol due to social, coping, or enhancement motivations were more likely to indicate that their peers consumed more alcohol than participants who did not indicate that they used alcohol due to those motivations. Additionally, participants whose alcohol consumption score was higher indicated that they believed that their peers consumed more alcohol than the participants with low alcohol consumption scores.

McNally, Palfai, Levine, and Moore’s (2003) research found a link between attachment styles with negative models of self and consuming alcohol for coping motivations. The current study set out to see if a direct correlation existed between self-esteem (which would be a negative model of self) and coping motivations if the other factors of the fearful and preoccupied attachment style were taken out of the picture. The current

research did not find a relationship between these two factors. The researcher theorizes that this link between coping motivations and fearful and preoccupied attachment styles is either due to an unknown tertiary factor or that the self-esteem measurement the current study used did not adequately measure the aspects of self-esteem that is correlated with consuming alcohol for coping motivations.

The findings in this study are reflective of a college population, primarily of the students under the age of twenty-one due to convenience. Although the current study did not confirm the primary hypothesis, it did reveal several correlations with motivations.

### **Future Research**

In the future, this study should be repeated with college students over the age of 21, with a more equal distribution in gender, and more measures in place to reduce socially desirable responding. If no link is established between attachment style and alcohol consumption in the repeated study then it could be concluded that the college population is an exception to the correlation found by other researchers. If the link between attachment style and alcohol consumption is established in the repeated study but the relationship between coping and social motivations is not established; then, more research should be conducted to determine the validity of the theory that the link is due to an evolutionary factor.

Additionally, more research should be conducted to determine how to best formulate an underage drinking prevention program. An experimental study should be conducted on

conformity motivations to investigate if the lack of correlation found in this study is due to conformity not being a strong motivating factor for alcohol use or if the current peer-pressure centered initiatives have been efficacious in reducing the levels of conformity motivation in this generation of participants. Additionally, future research should craft and test the effectiveness initiatives focused on other motivations for alcohol consumption. Also, the link between estimated alcohol use of peers and personal alcohol use should be more closely examined to explore if a campus wide campaign dedicated to educating students about “college drinking norms” is effective in reducing levels of current alcohol consumption levels among students.

### **Implications**

These data could have future implications in how campus wide responsible drinking campaigns are crafted. These implications could be seen not only in a college setting, but also in middle school and high school settings. If more effective underage drinking prevention programs are crafted and instituted in schools then there may be less alcohol related deaths in this demographic, fewer cognitive impairments, and fewer cases of alcohol dependence in adulthood.

Social workers, police officers, physicians, and parole officers may also find this information helpful in their respective professions. Alcohol dependence can lead to consequences that affect the whole community, so it is important that the people who typically work with individuals that have an AUD have a thorough understanding of all the

factors contributing to potentially dangerous alcohol use. By understanding these factors better, these professional members of the community can better prevent individuals from reaching the point where they have an AUD or better help these individuals change their alcohol consumption habits.

Additionally, this research could have implications for parents or any other person concerned about a loved one's alcohol use. Identifying motivating factors of alcohol use can make the behavior seem more relatable and lead to increased empathy towards the individual instead of hostility. Empathy is viewed as a critical component to any helping relationship (Reynolds & Scott, 1999). Moreover, by identifying an individual's personal motivations a personalized intervention may be conducted and alternate activities could be promoted that address the same motivations.

Furthermore, this research has economic implications. Alcohol was estimated to cost the U.S. economy \$223 billion dollars in 2006 (Bouchery, Harwood, Sacks, Simon, & Brewer, 2011). Two important factors that alcohol consumption may financially impact are work productivity and healthcare which account for 72% (\$161 billion) and 11% (\$25 billion) respectively (Bouchery et al., 2011). Per capita, the consequences of alcohol use cost each American (children included) \$746 (Bouchery et al., 2011). If communities use this research and future research to create community wide campaigns that are proven to reduce alcohol use then the U.S. economy may be significantly improved.

## REFERENCES

- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, *61*(2), 226-244. doi:10.1037/0022-3514.61.2.226
- Bouchery, E. E., Harwood, H. J., Sacks, J. J., Simon, C. J., & Brewer, R. D. (2011). Economic costs of excessive alcohol consumption in the US, 2006. *American Journal of Preventive Medicine*, *41*(5), 516-524.
- Center for Behavioral Health Statistics and Quality. (2015). *Behavioral health trends in the United States: Results from the 2014 national survey on drug use and health* (HHS Publication No. SMA 15-4927, NSDUH Series H-50). Retrieved from <http://www.samhsa.gov/data/>
- Cooper, M. L. (1994). Motivations for alcohol use among adolescents: Development and validation of a four-factor model. *Psychological Assessment*, *6*(2), 117-28.
- Cooper, M. L., Shaver, P. R., & Collins, N. L. (1998). Attachment styles, emotion regulation, and adjustment in adolescence. *Journal of Personality and Social Psychology*, *74*(5), 1380-1397. doi:10.1037/0022-3514.74.5.1380
- Cox, W. M., & Klinger, E. (1988). A motivational model of alcohol use. *Journal of Abnormal Psychology*, *97*(2), 168-180.



- De Rick, A., Vanheule, S., & Verhaeghe, P. (2009). Alcohol addiction and the attachment system: An empirical study of attachment style, alexithymia, and psychiatric disorders in alcoholic inpatients. *Substance Use & Misuse, 44*(1), 99-114.  
doi:10.1080/10826080802525744
- Erol, A., & Karpyak, V. M. (2015). Sex and gender-related differences in alcohol use and its consequences: Contemporary knowledge and future research considerations. *Drug & Alcohol Dependence, 156*, 1-13. doi:10.1016/j.drugalcdep.2015.08.023
- Hazan & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*(3), 511–524.
- Martens, M. P., Page, J. C., Mowry, E. S., Damann, K.M., Taylor, K.K., & Cimini, M.D., (2006). Differences between actual and perceived student norms: An examination of alcohol use, drug use, and sexual behavior. *Journal of American College Health, 54*(5), 295-300. doi:10.3200/JACH.54.5.295-300
- McNally, A. M., Palfai, T. P., Levine, R. V., & Moore, B. M. (2003). Attachment dimensions and drinking-related problems among young adults: The mediational role of coping motives. *Addictive Behaviors, 28*(6), 1115-1127. doi:10.1016/S0306-4603(02)00224-1
- Perkins, H. W., Meilman, P. W., Leichliter, J. S., Cashin, J.R., & Presley, C.A. (1999). Misperceptions of the norms for the frequency of alcohol and other drug use on

college campuses. *Journal of American College Health*, 47(6), 253-258.

doi:10.1080/07448489909595656

National Institute of Alcohol Abuse and Alcoholism (2015). *Alcohol use disorder: A comparison between DSM-IV and DSM-5*. Retrieved from

<http://pubs.niaaa.nih.gov/publications/dsmfactsheet/dsmfact.htm>

National Institute of Alcohol Abuse and Alcoholism (2015). *College Drinking*. Retrieved

from <http://pubs.niaaa.nih.gov/publications/CollegeFactSheet/CollegeFactSheet.pdf>

National Institute of Alcohol Abuse and Alcoholism (2016). *Alcohol Facts and Statistics*.

Retrieved from <http://pubs.niaaa.nih.gov/publications/AlcoholFacts&Stats/>

[AlcoholFacts&Stats.htm](http://pubs.niaaa.nih.gov/publications/AlcoholFacts&Stats.htm)

National Institute of Alcohol Abuse and Alcoholism (2016). *Underage Drinking*. Retrieved

from [http://pubs.niaaa.nih.gov/publications/UnderageDrinking/Underage\\_Fact.pdf](http://pubs.niaaa.nih.gov/publications/UnderageDrinking/Underage_Fact.pdf)

Novier, A., Diaz-Granados, J. L., & Matthews, D. B. (2015). Review: Alcohol use across the lifespan: An analysis of adolescent and aged rodents and humans. *Pharmacology, Biochemistry and Behavior*, 133, 65-82. doi:10.1016/j.pbb.2015.03.015

Quaglino, V., De Wever, E., & Maurage, P. (2015). Relations between cognitive abilities, drinking characteristics, and emotional recognition in alcohol dependence: A preliminary exploration. *Alcoholism: Clinical & Experimental Research*, 39(10), 2032-2038 7p. doi:10.1111/acer.12841

Reynolds, W. J. and Scott, B. (1999), Empathy: A crucial component of the helping relationship. *Journal of Psychiatric and Mental Health Nursing*, 6(5), 363–370. doi: 10.1046/j.1365-2850.1999.00228.x

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Substance Abuse and Mental Health Services Administration (2013). *Results from the 2012 national survey on drug use and health: Summary of national findings*. Retrieved from <http://www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFWHTML2013/Web/NSDUHresults2013.pdf>

Substance Abuse and Mental Health Services Administration (2015). *Results from the 2014 national survey on drug use and health: Summary of national findings*. Retrieved from <http://www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFWHTML2013/Web/NSDUHresults2013.pdf>

Tops, M., Koole, S. L., IJzerman, H., & Buisman-Pijlman, F. T. (2014). Why social attachment and oxytocin protect against addiction and stress: Insights from the dynamics between ventral and dorsal corticostriatal systems. *Pharmacology, Biochemistry and Behavior*, 119 (The role of oxytocin in positive affect and drug-related reward), 39-48. doi:10.1016/j.pbb.2013.07.015

U.S. Department of Agriculture and U.S. Department of Health and Human Services. (2010).

*2015–2020 Dietary guidelines for Americans*. 8, Appendix 9. Retrieved from [http://](http://health.gov/dietaryguidelines/2015/guidelines/appendix-9/)

[health.gov/dietaryguidelines/2015/guidelines/appendix-9/](http://health.gov/dietaryguidelines/2015/guidelines/appendix-9/)

World Health Organization. (1992). *Alcohol Use Disorder Identification Test*.

## APPENDIX A

### Demographics Questionnaire Part 1

Please indicate your sex:

- Male
- Female

What is your ethnicity?

- Caucasian
- Black/African American
- Hispanic or Latino/a
- Asian/Asian American
- Native American
- Other (Please specify) \_\_\_\_\_

What year are you in school?

- High School (taking dual credit courses)
- College first-year
- College second-year
- College third-year
- College fourth-year
- College fifth-year or more
- Graduate Student
- Other (Please specify) \_\_\_\_\_

What is your age? \_\_\_\_\_

**Demographics Questionnaire Part 2**

Are you a collegiate athlete?

- Yes
- No

Are you a member of a sorority?

- Yes
- No

Are you a member of a fraternity?

- Yes
- No

Indicate your approximate GPA

- Below 1.0
- 1.0-1.5
- 1.6-2.0
- 2.1-2.5
- 2.6-3.0
- 3.1-3.5
- 3.6-4.0

## APPENDIX B

### **Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991)**

*Following are four general relationship styles that people often report. Please select the letter corresponding to the style that best describes you or is closest to the way you are.*

**A.** It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.

**B.** I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

**C.** I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

**D.** I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

*Now please rate each of the relationship styles above to indicate how well or poorly each description corresponds to your general relationship style.*

**Style A**

1	2	3	4	5	6	7
Disagree Strongly			Neutral/Mixed	Agree Strongly		

**Style B**

1	2	3	4	5	6	7
Disagree Strongly			Neutral/Mixed	Agree Strongly		

**Style C**

1	2	3	4	5	6	7
Disagree Strongly			Neutral/Mixed	Agree Strongly		

**Style D**

1	2	3	4	5	6	7
Disagree Strongly			Neutral/Mixed	Agree Strongly		



## APPENDIX C

### Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965)

*Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.*

1. On the whole, I am satisfied with myself.

Strongly Agree                      Agree                      Disagree                      Strongly Disagree

2. At times I think I am no good at all.

Strongly Agree                      Agree                      Disagree                      Strongly Disagree

3. I feel that I have a number of good qualities.

Strongly Agree                      Agree                      Disagree                      Strongly Disagree

4. I am able to do things as well as most other people.

Strongly Agree                      Agree                      Disagree                      Strongly Disagree

5. I feel I do not have much to be proud of.

Strongly Agree                      Agree                      Disagree                      Strongly Disagree

6. I certainly feel useless at times.

Strongly Agree                      Agree                      Disagree                      Strongly Disagree

7. I feel that I'm a person of worth, at least on an equal plane with others.

Strongly Agree                      Agree                      Disagree                      Strongly Disagree

8. I wish I could have more respect for myself.

Strongly Agree                      Agree                      Disagree                      Strongly Disagree

9. All in all, I am inclined to feel that I am a failure.

Strongly Agree                      Agree                      Disagree                      Strongly Disagree

10. I take a positive attitude toward myself.

Strongly Agree                      Agree                      Disagree                      Strongly Disagree

## APPENDIX D

### Alcohol Use Disorder Identification Test (AUDIT; WHO, 1992)

How often do you have a drink containing alcohol?

- Never
- Monthly or less
- 2-4 times a month
- 2-3 times a week
- 4 or more times a week

How many drinks containing alcohol do you have on a typical day when you are drinking?

- 1 or 2
- 3 or 4
- 5 or 6
- 7, 8, or 9
- 10 or more

How often do you have six or more drinks on one occasion?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you found that you were not able to stop drinking once you had started?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you failed to do what was normally expected of you because of drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you had a feeling of guilt or remorse after drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year have you been unable to remember what happened the night before because of your drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

Have you or someone else been injured because of your drinking?

- No
- Yes, but not in the last year
- Yes, during the last year

Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?

- No
- Yes, but not in the last year
- Yes, during the last year

## APPENDIX E

### Modified Alcohol Use Disorder Identification Test

How often do you think the average college student has a drink containing alcohol?

- Never
- Monthly or less
- 2-4 times a month
- 2-3 times a week
- 4 or more times a week

How many drinks containing alcohol do you think the average college student has on a typical day when he/she is drinking?

- 1 or 2
- 3 or 4
- 5 or 6
- 7, 8, or 9
- 10 or more

How often do you think the average college student has six or more drinks on one occasion?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year do you think the average college student was not able to stop drinking once he/she had started?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year do you think the average college student has failed to do what was normally expected of him/her because of drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year do you think the average college student needed a first drink in the morning to get himself/herself going after a heavy drinking session?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year do you think the average college student had a feeling of guilt or remorse after drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

How often during the last year do you think the average college student has been unable to remember what happened the night before because of his/her drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

Do you think that the average college student or someone else has been injured because of his or her drinking?

- No
- Yes, but not in the last year
- Yes, during the last year

Do you think that a relative, friend, doctor, or other health care worker been concerned about the average college student's drinking or suggested he/she cut down?

- No
- Yes, but not in the last year
- Yes, during the last year



## APPENDIX F

### Drinking Motivations Questionnaire-Revised (DMQR; Cooper, 1994)

You drink...

To forget your worries.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

Because your friends pressure you to drink.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

Because it helps you enjoy a party.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

Because it helps you when you feel depressed or nervous.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

To be sociable.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

To cheer up when you are in a bad mood.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

Because you like the feeling.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

So that others won't kid you about NOT drinking.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

Because it's exciting.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

To get high.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

Because it makes social gatherings more fun.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

To fit in with a group you like.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

Because it gives you a pleasant feeling.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

Because it improves parties and celebrations.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

Because you feel more self-confident and sure of yourself.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

To celebrate a special occasion with friends.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

To forget about your problems.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

Because it's fun.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

To be liked.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

So you won't feel left out.

- Almost never/Never
- Some of the time
- Half of the time
- Most of the time
- Almost always/Always

## **BIOGRAPHY**

Jordan Walker is originally from Weatherford, Texas. She came to Angelo State University in the fall of 2013. She will be graduating in May of 2016 with her Bachelor of Arts in Psychology and minors in Technical Writing and Spanish. Throughout her college career she has been involved in several organizations such as the Honors Program, Alpha Chi, Psych Club, and several others. She has been working closely on various projects under the supervision of Dr. Crystal Kreitler since the fall of 2014. Thus far she has achieved many academic accomplishments such as having a literature review published, presenting at Southwestern Psychological Association's conference, being named the 2016 Psychology Student of the Year, and receiving a grant to conduct independent research over attachment styles and perceptions of alcohol consumption in college students.

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