# THE EFFECTS OF ALCOHOL, PARTNER TYPE AND IMPULSIVITY ON SEXUAL RISK-TAKING BEHAVIOR IN COLLEGE-AGED WOMEN

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#### **ABSTRACT**

With the AIDS and STD epidemic on the rise, the concern for young people's risky behavior in sexual situations becomes a crucial issue. Numerous studies have found that alcohol influences risky sexual behavior, but other factors seem to play a role as well. The current study examines participants' perceptions of different partner types (new, casual and steady) and alcohol consumption on the likelihood of condom use in hypothetical situations in vignettes. In addition, participant self-reports of alcohol consumption and their scores on impulsivity scales were correlated to condom use self-efficacy scores and self-reported condom use. A 2x3 MANOVA was conducted using two levels of alcohol (alcohol/no alcohol) and three levels of sexual partner types (new, casual, steady) in a vignette randomly assigned to female college students. Perception of risk, importance in condom use, and likelihood of the characters to suggest the use of a condom were rated on a 5-point Likert scale. Two regression equations were also conducted with the first one measuring the participants' history of alcohol use in the past three months, level of impulsivity and condom use self-efficacy. The second equation included these three scales as well as participant-reported actual condom use in the past three months. A significant main effect in the alcohol condition was found in the MANOVA as well as a main effect in partner type. A significant interaction was also found in the MANOVA. Specifically, a univariate analysis revealed a main effect in partner type for the vignette question rating the participants' perception of the situation risk; participants perceived a situation to be higher in risk when the male is a new partner than when he is a steady partner. The univariate analysis also revealed a main effect in the alcohol condition as well as an interaction in the vignette question measuring the participants' expectation of the female character suggesting the use of a condom. Participants reported lower expectation for the female character to suggest the

use of a condom when drinking across all partner types. The interaction revealed that the new and casual partner conditions responded similarly while drinking but the steady partner condition was significantly different in that participants expected the character to suggest a condom regardless of alcohol condition. The first regression equation revealed that impulsivity, though not alcohol use, was a significant factor in condom use self-efficacy. The second regression equation showed that impulsivity, alcohol use, and condom use self-efficacy all were significant predictors in participants' self-reported condom use. Consequences of alcohol intoxication and the risk in all partner types are imperative issues that young adults need to understand. The results suggest that increased harm reduction education and health education on disease risk with all types of partners are particularly needed in this population.

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#### INTRODUCTION

As adolescents begin a new stage of their lives when entering college, many start enjoying the freedoms that accompany moving away from home. Experiencing life away from parental authorities often gives way to numerous opportunities for parties, alcohol, and sexual relations that may put many students at risk for dangerous consequences. Norris, Masters, and Zawacki (2004) stated that 15 to 24 year olds made up only 25 percent of the sexually active population and yet they accounted for 45 percent of the new cases of sexually transmitted diseases in the U.S in 2000. Studies have shown that 80 percent of college students are sexually active and approximately 25 percent have had six or more sexual partners (Abbey, Saenz & Buck, 2005). Importantly, condoms were used consistently in these sexual encounters by less than 25 percent. It is no surprise that the U.S. experiences about 18.9 million new cases of STDs, including about 40,000 new cases of HIV every year according to Norris et al. (2004). Unfortunately, this study also showed that women are physiologically more vulnerable to contracting an STD than men, making women more at risk for such dangers. Because of this vulnerability, women are at least twice as likely as men to contract an STD in just one exposure. Condom Use

Because of this growing epidemic of STDs and AIDS, researchers have become increasingly interested in identifying the factors that influence sexual risk-taking behaviors such as the inconsistent use of condoms among adolescents and young adults. Santrock (2005) suggests possible factors in sexual risk-taking behavior including: sexual involvement before the age of 16, low socioeconomic status (SES), poor family/parenting circumstances and low self-regulation. Santrock (2005) particularly emphasizes the importance of self-regulation as being a factor in sexual risk-taking since having the ability to control one's emotions and behavior can

play a large role in whether or not an individual will take protective measures during sexual activity.

Other factors may influence sexual risk-taking behaviors; Debose (2000) found that self-efficacy in the use of a condom also predicted self-reported condom use. Self-efficacy is defined as the belief that one is able to effectively use condoms in any situation and that there are positive consequences of using a condom. Debose (2000) found that the less self-efficacy an individual reports in the use of a condom, the less consistent the individual will be in using a condom. The role of alcohol in behavior as well as sexual partner type have also been examined by many researchers but have been seen as influential in sexual risk taking. Furthermore, studies have examined the relationship between partner types (new, casual or steady) and the likelihood of risky sexual behavior (LaBrie et al., 2005; Cooper, Shapiro & Powers, 1998). Other studies report that impulsivity may predict the relationship between risky behaviors such as alcohol consumption and unsafe sexual practices (Hair & Hampson, 2006; Cooper, Agocha & Sheldon, 2000).

## Partner Type

As noted above, an important factor influencing women's views on sexual risk-taking and decision-making that has been of interest are partner types. How a woman may view her risk, and in consequence, whether or not she will use a condom may have an impact due to a new partner, a familiar partner, or a steady partner. In a study conducted by LaBrie, Earleywine, Schiffman, Pederson, and Marriot (2005), sexually active heterosexual college males were queried about their own alcohol consumption, expectancies about alcohol's effect on condom use, and partner type. These factors were then examined on their effect on the participants' self-reported condom use. LaBrie et al. (2005) stated that a link has been identified between alcohol

expectancies toward sex and risky sexual behavior. It was reported that the expectancies of alcohol's impact on condom use played a significant part in drinking and condom use. Only those with a strong expectancy that alcohol will make people disinhibited were seen to have a correlation between the amount of alcohol consumed and the use of condoms. It appears that alcohol expectancies in condom use play a role in lowering condom use self-efficacy, which in turn, lowering the self-reported use of condoms.

In this study, LaBrie et al. (2005) also examined the effects of alcohol consumption and alcohol expectancies about condom use depending on partner type. Partner types were examined on three levels: new, casual, and regular. According to this study, casual partners are defined as those who have had fewer than five sexual events together and have known each other no more than one month. Regular partners were not specifically defined but were assumed that they are those who have known each other longer than a month and have had more than five sexual events together. Labrie et al. (2005) thought that these distinctions were important since partner type may have a moderating effect with the amount of alcohol consumed and risky sexual behavior. Specifically, it was expected that drinking would be more likely to lower the use of condoms with casual partners than with new partners, and that drinking in general would significantly lower the likelihood of condom use with any partner type.

This study conducted by LaBrie et al. (2005) involved 93 college male participants who were current drinkers and currently sexually active. A doctoral-level psychologist certified in Motivational Interviewing conducted the Timeline Followback Interview: Sexual Behavior and Substance Use protocol to interview each participant concerning the past three months alcohol and sexual activities.

Interestingly, LaBrie et al. (2005) found that regular partners had little effect on alcohol consumption and condom use when compared to a new or casual partner. It was concluded that regular partners know each other well and may have a set pattern of sexual behavior where sexually transmitted diseases (STD) were not an issue; only 45% of the regular partners used a condom. When a condom was used, it was more for the prevention of pregnancy than for the protection from an STD. Novel partners tended to be very concerned with possible diseases that the other partner may have due to unknown sexual histories. New partners seemed most likely to use a condom when compared to casual and regular partners. Unfortunately, only 56% of casual partners used a condom after drinking. LaBrie et al. (2005) suggested that a sense of security against STDs, though may be false, might have occurred due to previous sexual encounters. This false security puts individuals at a higher risk, as they tend to consume more alcohol and feel less concerned about protecting themselves with condoms.

The LaBrie study mainly examined self-reported condom use based on partner types and past self-reported alcohol use. This study also did not identify the method in which the partner types were defined, therefore giving rise to the question of how the participants interpreted a new, casual or regular partner type. The present study seeks to extend our understanding of this relationship by examining participants' responses to different partner types according to the current sample's definition of partner types and, thereby, gaining insight into the conceptual basis of condom use.

## Condom Use Self-efficacy

Another study examining partner type and condom use was conducted by Haeften,
Fishbein, Kaspryzk, and Montano (2000) where the intentions to use a condom were also
considered. The study not only examined the different factors that can influence the intentions to

use a condom but also the factors that influence the individual's abilities to act on these intentions. Some factors that were considered were partner type, such as main or occasional, gender, ethnicity, and risk. Haeften et al. (2000) also considered variables such as attitude and self-efficacy that have been seen to influence an individual's ability to act on one's intention.

Haeften et al. (2000) collected data from 957 participants who were considered to be from an STD high-risk population. Intention to use a condom in the next three months was measured on a seven-point Likert scale ranging from "likely" to "unlikely" to report the likelihood a condom will be used based on the partner type. Behavioral and control beliefs concerning condom use with different partners were also assessed using a seven-point Likert scale. Three months after the initial assessment, 680 of the original respondents returned for a follow-up session on self-reports for condom use.

Using a Likert scale, Haeften et al. (2000) found that partner type did significantly predict condom use intentions. Specifically, the study found that both men and women were more likely to have intentions of using a condom with a casual partner than with a main partner. In regards to condom use self-efficacy, women who believed that using a condom is the responsible thing to do were more likely to act on their intentions to use a condom. These women were also less likely to believe that using a condom will convey the idea to their partner that they may have an STD or that using a condom will make them feel awkward. Haeften et al. (2000) also found that those who acted on their intentions to use a condom recognized the difficulty in using a condom under the influence of a substance and were also more likely to consider it necessary to have condoms available for use.

#### Alcohol

The consequences of alcohol intoxication have been seen in a variety of situations. Unfortunately, some of these consequences are irreversible, but yet so common. In a study conducted by Abbey, Saenz, and Buck (2005), the effects of alcohol consumption were related to situational perceptions concerning sexual decision-making. Since heavy drinking generally occurs with sexual risk taking, the concern of serious STDs such as AIDS has become a motivator of such studies. Findings that deal with alcohol and how it affects sexual risk taking have been conflicting; therefore, new ideas have been developed to explain these common stereotypes. It is seen that moderate amounts of alcohol have the ability to impair several higher functioning cognitive processes such as abstraction, conceptualization, planning, and problem solving (Abbey et al., 2005). Intoxication from alcohol also seems to impair the perceptual field in that it narrows it so only the most salient cues become noticed while other cues are minimized or ignored. This theory, also called alcohol myopia, asserts that intoxication may decrease the individuals' perception of risk when it is not as obvious as another cue. Abbey et al. (2005) went on further to explain that in sexual decision making, instigatory cues such as the individual's sexual desire usually become more salient than inhibitory cues such as potential diseases or social norms about casual sex.

Abbey et al. (2005) also suggest that intoxicated individuals may be aware of potential risks, but while intoxicated, they tended to not worry about those risks. It is explained that alcohol affects the higher-order cognitive processing in that intoxication may diminish anxiety about having unprotected sex. Though alcohol may affect people similarly on certain aspects, alcohol may also have specific effects on different people due to individual differences. Abbey et al. (2005) discuss that alcohol's effects on sexual risk taking decisions may be in part due to

personality characteristics that contribute to both drinking and sexual risk taking. Some characteristics that were suggested included sensation seeking and impulsivity, which are both positively correlated to self-reported heavy drinking and self-reported sexual risk taking.

In the Abbey et al. (2005) study, alcohol was administered to some participants and none to other participants prior to reading a vignette that involved a male and a female who wanted to have sex but had no condom available. It was found that the participants who consumed alcohol in the study were more likely to report that they would have unprotected sex with a partner whose STD risk was unknown than those who did not consume alcohol. Abbey et al. (2005) also stated that participants who thought of more negative things that could happen when having sex without using a condom, and the more worried they were about it, the less likely they were to report that they would have sex without a condom. However, it was found that even those who were intoxicated think of just as many negative consequences and worry about them but still are willing to have unprotected sex (Abbey et al., 2005). It appears that despite knowledge of possible negative consequences of unprotected sex, alcohol still has the ability to affect adequate decision-making.

Some studies discuss other possible explanations of alcohol's effect on risky sexual behaviors. According to Cooper (1992), data have shown a relationship between alcohol consumption and increased liberal sexual attitudes and practices. Cooper (1992) mentions the possibility that individuals have expectancies of how alcohol influences people and therefore, use these expectations to do things that may normally be socially unacceptable. Alcohol may provide an excuse for desired sexual behaviors that would otherwise be considered inappropriate.

Along with the expectancies that individuals have concerning alcohol's influence on behavior, alcohol seem to have a physiological effect that may lead to behavioral disinhibition.

Cooper (1992) explains that there are two different cues that behavior relies on: inhibitory cues and instigatory cues. Normally, individuals are able to process inhibitory cues, which are cues that stop a certain behavior even when cues that promote a behavior (instigatory cues) are available. While intoxicated, instigatory cues tend to be more salient while inhibitory cues go unnoticed or ignored. Due to alcohol's impairing nature, Cooper (1992) suggests that an individual who has been drinking will be less likely to process negative consequences that are not immediate and therefore, becomes more responsive to the cues that instigate a behavior whose positive consequences are immediate. Thus, the inability to process inhibitory cues make risky decisions, such as having sex without a condom, more prevalent.

Cooper (1992) also discusses the responses of participants interviewed about their alcohol use and their specific risk behaviors on the first sexual intercourse with the most recent partner. Drinking prior to intercourse, discussion of AIDS-related risks with the partner, and self-reported condom use were examined for the first intercourse with the most recent partner and the first time intercourse of those who had only one partner in their lifetime. It was found that the respondents who did drink prior to the first sexual intercourse discussed fewer AIDS-related risks with their partner, were less likely to use a condom, and were more likely to have casual partners than the respondents who did not drink prior to the intercourse (Cooper, 1992).

In another study, Leigh (1990) examined the relationship of substance use during sexual interaction and its effects on risky sexual behavior. A survey was sent out to households of the San Francisco city area concerning overall drinking habits and drug use, sexual behavior, sexual attitudes and beliefs, beliefs about the effects of alcohol, AIDS knowledge and attitudes, and demographics. Only data from those who reported not being in a monogamous relationship were used in this study to insure risk would be equally weighted.

After the surveys were returned and analyzed, Leigh (1990) found that those who reported more risky sexual behaviors in the past 30 days also reported more instances of sex while under the influence of alcohol. Further, an individual tended to increase risky behavior while drinking the more times the individual had sex within 30 days. Findings also revealed that the most important predictor of risky sexual behavior was the number of times the individual had sex, while the second most important predictor for males was partner drinking. This implies that sexual risk-taking increases when the female partner, in particular, is drinking.

Though these findings seem persuasive, Leigh (1990) suggested that there may still be some third underlying variable that influences the relationship between sexual risk-taking behaviors and substance abuse such as environmental or situational characteristics. Another possible factor Leigh (1990) suggests could be personality characteristics such as risk-taking or impulsivity that may explain both drinking and sexual risk-taking behaviors.

These studies generally show that individuals will display more risk-taking behaviors while intoxicated, but not necessarily the attitudes toward such behavior from those with a history of drinking. The experimental section of the current study will investigate the effects of perceived alcohol use in risk taking behavior by examining participants' perceptions of sexual risk taking in the presence of alcohol. The relationship between the history of alcohol use and condom use self-efficacy, impulsivity, and condom use will be examined with self-report scales. Impulsivity

Certain personality characteristics such as impulsivity may have an influential effect on multiple risky behaviors. Cooper, Agocha and Sheldon (2000) examined the role of personality and affect regulatory processes on risky behaviors. They assumed that neuroticism drives coping motives to avoid or escape aversive emotional states and extraversion drives enhancement

motives, which result from the desire to pursue positive affect. Cooper et al. (2000) expected impulsivity to interact with both neuroticism and extraversion and therefore directly predict risky behaviors. Cooper et al. (2000) hypothesized that individuals participate in risky behaviors because these behaviors provide an immediate benefit that individuals find to be worth the risk of possible longer termed or less immediate negative consequences that are not guaranteed to occur. For these individuals, the immediate gains of the risky behavior become salient whereas the potential negative consequences are seen as far away, less likely to occur or unimportant.

Cooper et al. (2000) discussed that individuals that are high in extraversion would more likely engage in risky behaviors to enhance positive emotions and affective experience. These individuals tend to have heightened sensitivity toward reward cues, particularly cues that are immediate. Extraversion creates a drive to seek out positive emotional states or experiences, which may lead to more risky behavior.

Impulsivity is marked with giving in to urges, impulses or desires and responding immediately to a stimulus instead of considering and planning before taking action (Cooper et al., 2000). Those who are highly impulsive have difficulty controlling thoughts and behavior. This difficulty may be due to deficits in working memory, higher-order cognition or self-regulation of affect. With this in mind, a highly impulsive individual may choose a path that maximizes the immediate gain, regardless of future costs.

Cooper et al. (2000) conducted a study involving 1,666 adolescent participants who were interviewed either face-to-face or via computer-assisted, which included self- and interviewer-administered portions. Sensitive questions regarding condom use and sexual behavior were self-administered. This study looked at personality dimensions, particularly neuroticism, extraversion, and impulsivity from the three-factor Models and extraversion, neuroticism, and

conscientiousness from the Big Five dimensions. Cooper et al. (2000) also used scales to measure drinking motives, sex motives, alcohol use behaviors, and risky sexual behaviors.

Results of this study (Cooper et al., 2000) indicated that personality traits such as impulsivity are correlated with risky behaviors, particularly in the area of alcohol involvement where heavy drinking strongly predicted problems. Impulsivity was still a strong factor in predicting both heavy drinking and condom use, which suggests that poor impulse control leads to some risky behaviors (Cooper et al., 2000). Because sexual intercourse involves two people, this study was not able to make clear assumptions on how an individual's impulsivity affects sexual risk-taking, though such personality characteristics may, in fact, play an important role.

Hair and Hampson (2006) studied the role of impulsivity in maladaptive behavior in college females. Their study used academic performance and self-reported alcohol consumption as measures of maladaptive behaviors. Participants completed personality assessments such as the Big Five inventory and the Barratt Impulsiveness Scale-II and a self-report measure of alcohol consumption. These measures were then analyzed against the participants' academic performance to find a relationship between impulsivity with alcohol consumption and academic performance.

Upon analyzing the data, Hair and Hampson (2006) found that impulsivity predicted the target criteria even more so than conscientiousness. The impulsivity factor was able to significantly predict both measures of academic performance and self-reported alcohol consumption.

Recognizing that impulsive people tend to show rash behaviors, another important consideration would be to determine which individuals are more likely to be impulsive. Studies by Steinberg (2007) found that adolescents and college-aged individuals tend to engage in more

high-risk behaviors than any other age group, including children and adults. Although this particular group may act with the most risk, Steinberg stated that their perception and understanding of risk and their vulnerability to it are comparable to those of adults. Despite their knowledge of dangerous behaviors and the consequences involved, adolescents continue to engage in these risky behaviors.

Since interventions that are designed to educate or challenge one's attitudes have been found to be ineffective (i.e. the Drug Abuse Resistance Education or abstinence-only sex education), Steinberg (2007) proposes a new perspective on risk taking, which involves both logical reasoning and psychosocial factors including: resistance to peer influence, impulse control, delay of gratification and impulse control. According to this perspective, logical reasoning appears to be fully developed by age 15, though psychosocial maturity continues to develop until the age of 25. Steinberg (2007) also states that in the presence of a risky situation, adolescents may be more sensitive than adults to rewards, though comparably sensitive to costs.

These findings suggest that adolescents' immature judgments are not due to a lack of understanding or the way they think, but rather a higher sensitivity to rewards and other cognitive control factors. Instead, Steinberg (2007) suggests strategies that focus on limiting the opportunities for adolescents to make risky decisions such as higher law enforcement for underaged drinking, raising the price of cigarettes and alcohol, and expanding adolescents' access to contraceptive services and products.

## The Present Study

Countless studies have already shown that alcohol consumption is positively correlated with the probability of sexual risk taking behavior in many ways. Along with alcohol consumption, partner types have also been examined in their role in condom use and it seems

pretty clear that the casual partner type is associated with the least consistent use of condoms. Impulsivity also indicates a factor in a host of risky behaviors, which would include risky sexual behavior and as the literature above successfully discussed, increased alcohol consumption. In the current study, partner type and alcohol consumption were examined in terms of their effects on intention to use a condom by use of experimental vignettes. Correlational data were used to examine the relationship between impulsivity, history of alcohol use, condom use self-efficacy, and self-reported condom use.

The present study includes two major components. The first is an experiment of participants' responses to sexual risk-taking behavior as a function of partner type (new, casual, and steady) and the use or non-use of alcohol among women portrayed in the experimental vignettes. Partner types were described by a group of female participants in focus groups to be used in vignettes for the main study; a new partner was considered one with whom intercourse was for the first time whereas a steady partner is one with whom exclusiveness and mutual commitment are shared. On the other hand, a casual partner is one where the relationship is mostly physical and other partners are allowed. The second aspect of the present study examined the individual differences among the participants in impulsivity and history of alcohol use in relation to condom use self-efficacy and in turn, actual condom use. This research sought to extend our knowledge of the conceptual framework of college-aged female students as it might impact their sexual risk-taking behavior.

Specifically, the present study examined how partner type and alcohol consumption (alcohol or no alcohol) were predictive of endorsed condom use in a given situation. Alcohol consumption and partner type both were expected to be predictive of risky sexual behavior by lack of consistent condom use with sexual partners other than those that are steady. The present

study examined how individuals would respond to risk-taking behavior in a sexual encounter based on alcohol consumption and partner type. It was expected that in the presence of alcohol, all conditions of partner types would decrease response to use a condom, but the casual partner type would see the most significant decreased response to use a condom in both the alcohol condition and the no alcohol condition.

It was also predicted that higher alcohol consumption history and impulsivity will be predictive of an individual's condom use self-efficacy; therefore alcohol consumption, impulsivity, and condom use self-efficacy will be predictive of participant reported condom use.

#### **HYPOTHESIS**

It was hypothesized that:

- 1. Participants will report greater perceived condom use among persons portrayed in the vignettes as a new partner type rather than as a casual or steady partner type.
- 2. Participants will perceive greater condom use among those portrayed in the vignettes not using alcohol as those portrayed using alcohol.
- 3. Participants will perceive a greater reduction of condom use among casual and steady partner types than with new partner types when the individual portrayed in the vignette is using alcohol compared to when the individual portrayed in the vignette is not using alcohol.
- 4. High history of alcohol use and high scores on the impulsivity scale will both contribute to lower condom use self-efficacy scores.

5. High history of alcohol use, high scores on the impulsivity scale, and low scores on the condom use self-efficacy scale will each have an individual contribution to decrease actual condom use.

### **METHOD**

Pilot study

A pilot study was conducted in order to determine the definitions of a new, casual and steady partner according to college-aged women. The definitions of such relationships were used for the experimental section of the current primary study to identify partner types in the vignettes without the actual use of the words "new, casual or steady" partners. The pilot study was imperative to the experiment to be able to analyze the effects of partner type in condom use according to the women's definition of a partner type. This is to ensure that the experimenter's understanding of a partner type is congruent with the population being studied.

**Participants** 

Fifteen undergraduate female students from the University of North Carolina Wilmington were recruited from introductory psychology classes for the pilot study. All participants received course credit points that went toward their introductory psychology class for their participation in the focus groups. Recruitment was completely voluntary in nature and students signed-up for participation on a sign-up board located in the hall of the Social and Behavioral Science building.

Materials

A short, open-ended questionnaire was used to guide the discussion in defining the partner types (see Appendix A).

#### Procedure

Before beginning, participants were asked to sign consent forms, which assured their anonymity and privacy. After the consent forms were collected, female research assistants were introduced and seated in the back to record individual subjects' responses. Open-ended questions were asked by the principal investigator concerning what defines a new, casual or steady partner type and what differentiates them from each other. Subjects were allowed to discuss their opinions on these terms in an open forum fashion. Responses were then tallied and the most frequent responses for each partner type were used in the vignettes in place of the actual terms *new*, *casual*, and *steady*.

## Data Analysis

Responses which were made by all participants were reviewed by three research assistant raters and calculated according to the most frequent replies for the terms new partner, casual partner and steady partner, both in terms of qualitative descriptors and quantitative definitions (i.e. number of sexual contacts). Definitions were then used in the vignettes in place of the terms new, casual or steady.

## Primary study

The primary study has two parts: an experiment and a survey. The experimental procedure used a vignette in which the participant reads a situation, and then answers questions on a Likert scale according to their personal views concerning the situation. The vignettes were manipulated according to whether the female character drinks alcohol or soda and what partner type she is with (i.e. new, casual, or steady partner). The correlational data were taken from the survey, which consisted of scales that measure impulsivity, condom use self-efficacy, and alcohol use as well as a demographics survey that specifically asks for condom use history.

## **Participants**

The primary study consisted of 218 female participants, who were recruited from the University of North Carolina Wilmington in the same manner as described above for the pilot study. All 218 participants were used in the experimental section of this study. Due to the nature of this study, only data from participants who responded *mostly men* or *only men* with whom they would have sex and those who had sex at least once in the past three months were used for data analysis in the survey section. Of the 218 participants, only two were excluded from the survey data analysis for sexual orientation and 82 were excluded for being non-sexually active in the past three months (28 had not had sex in the past three months and 52 had never had sex). Hence, 134 participants (63%) were used for the correlational analysis for being currently sexually active (having had sex at least once in the past three months).

Of the 218 participants, 84% (n = 184) were Caucasian, 6% (n=13) were African American, 2% (n = 4) were Asian, 2% (n = 5) were Hispanic and 6% (n = 12) were of other ethnicity. The majority of this population (85%, n = 186) ranged from 18 to 21 in age while 8% (n = 18) were 17 years old and below, 5% (n = 11) were 22 to 25 years old, and only 1% (n = 3) was 26 years old and older. Sixty-four percent (n = 140) of the students in this study were classified as freshmen, 12% (n = 27) as sophomores, 10% (n = 21) as juniors, 13% (n = 28) as seniors and 1% (n = 2) as other such as a college graduate or special student. Of this sample, only 1% (n = 2) of the participants reported that they were married while the rest (99%, n = 216) reported that they have never been married. Six percent (n = 13) of this population reported that they currently were living with a spouse or partner while 43% (n = 93) said they were steadily dating, 23% (n = 49) said they were occasionally dating and 29% (n = 63) were not currently dating.

#### Materials

A vignette was administered for the experimental section of the study (see Appendix B). The vignette included a couple at a party with the female in one of two drinking conditions: a soda or a few beers. The vignette eventually led to a sexual encounter where condom use was ambiguous and the nature of the relationship was described. Partner type was the underlying measure of the number of previous sexual encounters, which was determined by a pilot study prior to the experiment. Immediately below the vignette, six statements (It is important to use a condom in this situation, Having unprotected sex in this situation is risky, It is Tom's responsibility to ensure a condom is used, It is Nicole's responsibility to ensure a condom is used, It is likely that Tom would suggest the use of a condom, and It is likely that Nicole would suggest the use of a condom) were made for the respondents to score them using a five-point Likert scale, ranging from *strongly agree* to *strongly disagree*.

The Modified Quantity Frequency Index (Modified QFI), which was taken from the Quantity, Frequency, Variability Index (Calahan, Cisin, & Crossley, 1969), was used to assess the amount and frequency of the participant's alcoholic consumption. It also assessed types of alcoholic beverages consumed and the pattern of the participant's drinking habits for the past three months (see Appendix C).

The Condom Use Self-efficacy Scale (CUSES) created by Bradford and Beck (1991) was used to determine the participant's comfort level of using a condom. On a five-point Likert scale with 28 items, the CUSES indicated the individual's confidence in using a condom or getting their partner to use a condom (see Appendix D). It is related to the participant's belief that using condoms have positive consequences and that the individual can use them in various circumstances.

The UPPS Impulsive Behavior Scale (UPPS) was administered to assess the participant's level of general impulsivity as part of their personality characteristic. The UPPS is a 45-item scale that measures four personality pathways to impulsive behavior such as urgency, lack of perseverance, lack of premeditation, and sensation seeking (Whiteside & Lynam, 2001). Each item was rated on a four-point scale from Strongly Agree to Strongly Disagree (see Appendix E).

A demographics survey containing gender, age, race, sexual orientation, and school classification was also administered. In this survey, questions were asked concerning the participant's sexual history and condom use history. In addition, the individual's purpose in using a condom was asked (see Appendix F).

#### Procedure

A vignette, the three assessment scales (Modified QFI, CUSES, and UPPS) and a demographics survey were placed into manila envelopes with the vignette printed on pink stationary, the assessments on white, and the demographic survey on blue. The three assessments were placed in a counterbalanced order, but always follow the vignette and were before the demographics survey. Participants completed the packets in a reserved classroom of the Social and Behavioral Sciences building. Envelopes containing vignettes with different experimental conditions were shuffled in a quasi-random order and placed on the classroom desks with an informed consent form placed on top of each envelope. Participants were instructed to select any seat and to complete and return the informed consent before opening the envelope. The participants were also instructed to remove and complete the pink sheet from the envelope first; once all participants complete the vignette, they were asked to return it into the envelope and then to remove and complete the white packet. When participants completed these scales, they were instructed to return them to the envelope and to remove and complete the final

blue sheet. The demographic survey was completed and also placed back into the envelope as the final task, and thus all participants remained anonymous. The envelopes were then collected and the participants were thanked for their participation as they left. The envelopes were coded with numbers after they were collected.

## Results

## Demographical Results

Of the 134 currently sexually active participants whose data were used for the correlational analysis, approximately half (55%, n = 73) reported that they used a condom the last time they had sex while the other half (45%, n = 61) did not. This sample was also asked to report the percentage in intervals of ten (i.e. 0%, 10%, 20%) in the past three months that they used a condom. Though the most frequent response was 100% of the time (30% of participants, n = 40), the second most frequent response was zero (20% of participants, n = 27). Forty-one percent (n = 55) of the currently sexually active population surveyed reported that they used a condom 0 to 50% of the time in the last three months.

## **Experimental Results**

A Multivariate Analysis of Variance (MANOVA) was conducted with the vignettes to find any significant differences in response in each individual question. A significant difference in response was seen in the final item regarding to the likelihood that Nicole would suggest the use of a condom based on the alcohol conditions [F(1,217) = 13.369, p = .000]. It was found that participants responded higher in agreeing that Nicole would suggest the use of a condom when she is not drinking (M = 1.95, SD = .98) than when she is (M = 2.46, SD = 1.09). In addition, it was also indicated that a main effect was found in the partner types [F(2, 216) = 4.584, p = .011] on the second question where "Having unprotected sex in this situation is risky" was rated

strongly agree to strongly disagree. Specifically, the vignettes where Tom is a new partner (M = 1.15, SD = .651), participants responded significantly higher in agreement than when Tom is a steady partner (M = 1.56, SD = 1.085).

Along with these findings, an interaction was also found significant with the final question of the likelihood that Nicole would suggest the use of a condom [F(2, 216) = 3.304, p = .039] which can be seen on Figure 1. Since the interaction was significant, the alcohol conditions were then compared separately for each partner type by using simple main effects analysis. Partner types were also compared separately for alcohol type by the interaction by alcohol type. When the alcohol conditions were compared by partner types, a significant difference was found in the alcohol conditions with the new partner [F(1, 74) = 14.07, p = .000] as well as with the casual partner [F(1, 73) = 6.38, p = .012]. However, continuing across both levels of the alcohol condition, the steady partner type was not significant.

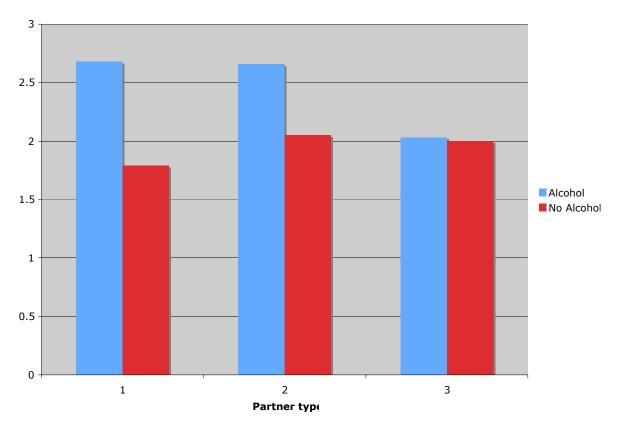
The same was seen when the partner types were compared by the alcohol conditions, except the results were in terms of alcohol conditions. The only significant difference in partner type was seen in the condition where Nicole drank alcohol [F(2, 110) = 4.85, p = .008] but not in the condition where Nicole did not drink alcohol.

Two separate univariate analyses of variances (ANOVA) were conducted using the two levels of alcohol (Nicole drinks a few beers and Nicole drinks a soda) and the three levels of partner type (new, casual, and steady) from vignettes where Tom always only drinks a soda. The ANOVAs were run with the last two questions that state, "It is likely that Tom would suggest the use of a condom" and "It is likely that Nicole would suggest the use of a condom." Participants respond from "1" as strongly agree, to "5" as strongly disagree. The question referring to Tom's

suggestion of the use of a condom showed no significant differences in response due to alcohol conditions or partner type conditions.

An ANOVA conducted on the question in reference to the likelihood of Nicole's suggestion of the use of a condom, given the vignette's particular situation, revealed interesting results. As expected, a main effect was seen in the alcohol conditions [F(1,217) = 13.369, p = .000] with results that displayed a higher response in agreeing that Nicole would suggest the use of a condom when she is not drinking (M = 1.95, SD = .98) than when she is (M = 2.46, SD = 1.09). The ANOVA also revealed an interaction [F(2, 216) = 3.30, p = .04] between alcohol conditions and partner types, though there was no main effect with partner type conditions alone.

# (MANOVA) Likelihood Nicole will suggest the use of a cor



Partner type: 1= New, 2 = Casual, 3 = Steady

Figure 1. Likelihood that Nicole will suggest the use of a condom.

## **Regression Results**

Two multiple regression equations were conducted for the correlational section of the study involving the Modified QFI (measuring alcohol use), UPPS (impulsive personality types), CUSES (condom use self-efficacy) and the demographics survey in which the participants reported their own past sexual behavior regarding the use of condoms. The Modified QFI measured three types of alcohol use (number of days in the past three months alcohol was drank, average reported frequency of each type of standard drink, and average number of standard drinks per occasion), which were all used in each regression. Only data from participants (n = 134) who were currently sexually active in the past three months were used in the regression equations.

The first regression equation was used to determine if alcohol use (Modified QFI) and impulsivity (UPPS) were predictors of condom use self-efficacy (CUSES). When using the average frequency of drinking as the alcohol use measure, results of this analysis indicated that these two scales accounted for 10% of the variance  $[R^2 = .101, F(2, 131) = 7.36, p = .001]$ . Although the average frequency of drinking was not a significant predictor of the CUSES while the UPPS was (p = .000), the Pearson correlation indicated a significant correlation between the average frequency of drinking and the UPPS (p = .000). Similar results were seen when the reported number of days alcohol was consumed in the past three months was used with the UPPS  $[R^2 = .078, F(2, 131) = 5.57, p = .005]$  as well as the average number of standard drinks consumed per occasion  $[R^2 = .094, F(2, 131) = 6.787, p = .002]$ .

The second regression equation used Modified QFI, UPPS, and CUSES together as predictors of the percentage of condom used in the past three months as reported on the demographics survey. Using the average frequency of drinking, results of this regression

revealed that the three scales accounted for 17% of the variance found  $[R^2 = .168, F(3,130) = 8.727, p = .000]$ . In this second regression, the Pearson correlation indicated that the Modified QFI, UPPS, and CUSES were all significant predictors of the self-reported percentage of condom use (p = .001, p = .000, p = .003 respectively). Similar regression results were found when the reported number of days alcohol was consumed in the past three months  $[R^2 = .188, F(3, 130) = 10.031, p = .000)$  as well as the average number of standard drinks consumed per occasion  $[R^2 = .134, F(3, 130) = 6.701, p = .000]$  was used with the UPPS and the CUSES.

#### DISCUSSION

Alcohol has been seen to have many faces, some friendly and others not so friendly. Clearly, alcohol is known to frequently rear its ugly head in a variety of ways, especially in decisions dealing with risky sexual behavior. The current findings suggested that alcohol coupled with partner type has a strong effect on the individual's expectation of risky sexual behavior. Whether due to a faulty trust in a steady relationship with a partner with whom the individual may be somewhat familiar or discomfort discussing condom use, alcohol seems to ensure a dangerous combination. Aside from partner type, impulsivity appears to have played a large role in predicting alcohol consumption and condom use self-efficacy, which in turn, predicted self-reported condom use. It appears that these variables were able to shed some light on the likelihood of condom use.

## Alcohol Use and Partner Type

As was expected, alcohol played a large role in risky decision-making (Abbey et al., 2005; Calahan et al., 1969; Cooper, 1992; Debose, 2000; LaBrie et al., 2005; Norris, 2004).

Analysis of the current study revealed that regardless of whether the partner was new or casual, participants tended to believe that Nicole (the female in the vignette) was less likely to suggest

the use of a condom if she had been drinking, even though the number of beers consumed and whether or not she was drunk remained ambiguous. Simply the fact that Nicole was drinking was influential enough for the participants to expect her to behave less responsibly than if she was drinking just a soda. Interestingly, if Nicole was with a steady partner, participants expected her to behave similarly whether or not she was drinking. This may suggest that a steady partner offers routine and stability, therefore whether alcohol is consumed or not, the couple's sexual habits do not necessarily change. Though participants responded significantly different with both a new or casual partner to a steady partner when the character is drinking, there was really no difference between responses for the new and casual partner. Simply put, the participants viewed that Nicole would be less likely to suggest the use of a condom at the same rate with a new partner or a casual partner while she is drinking.

The results also indicated that partner types were not really that important in whether or not Nicole suggests the use of a condom if she was not drinking. The analyses revealed that participants would respond relatively similarly across all partner types when the female in the vignette only drinks a soda. They perceived that Nicole would be more likely to suggest a condom than if she were drinking alcohol. As expected, participants tended to believe that the female would behave more responsibly with sexual encounters when she was completely sober than if she was not.

Another interesting finding was participants perceived sex with a new or casual partner to be more risky than with a steady partner. In this case, it was found that participants considered a new partner to be particularly risky to have unprotected sex with while a steady partner would pose the least risk. This leaves the risk of a casual partner to be somewhat ambiguous, which was expected. Unfortunately, participants may view a situation as risky if the partner is a new

one, but they still had lowered expectations of the female to assert sexual responsibility in protecting oneself from risk.

Alcohol Use, Impulsivity, and Condom Use Self-efficacy

Alcohol history and impulsive personalities were expected to be predictors of condom use self-efficacy. The current study found significance in these two factors contributing to the sense of self-efficacy in the use of a condom, though interestingly enough, alcohol use alone was not correlated with condom use self-efficacy. Perhaps this is due to self-efficacy being more of an independent factor where experience and expectations were more important than how much an individual drinks. Although alcohol use history did not appear to have a relationship with condom use self-efficacy, it did have a relationship with impulsive personality types. It appears that the more impulsive an individual is, the more the individual is likely to drink. Separate from this idea, this study displayed that the more impulsive the individual is, the less likely the individual's confidence to use a condom in all situations will be.

Alcohol Use, Impulsivity, Condom Use Self-efficacy, and Percent Condom Use

Results indicated that alcohol use may not have been predictive of condom use self-efficacy, but it was predictive of self-reported condom use. This finding was consistent with the participants' perceptions of the vignettes where alcohol use was influential in lowering the likelihood of the participants' expectation of Nicole's suggestion to use a condom. It was also found that impulsivity was predictive of reported condom use and not just condom use self-efficacy. This has shown that several factors can influence a woman's behavior and beliefs about condom use. The more impulsive an individual is, the more the individual is likely to drink, both being direct predictors of condom use, or rather, the lack of use. The less confident an individual feels in comfortably using or suggesting the use of a condom, the less likely that

individual will insure the use of one. It could also be suggested that impulsivity may affect the confidence to remember to use or carry a condom, hence a lower condom use self-efficacy and then, a lower condom use behavior.

## Limitations

One of the primary limitations of this study is the self-report method used. As with any self-report, there are always errors that must be taken in to account. Variables that were manipulated were also done hypothetically instead of directly on the participants such as the alcohol/no alcohol conditions. Though this may be a limitation, it still targeted the important attitudes and expectations in those hypothetical situations that tend to lead to behavior.

Future research may include actual administration of alcohol to see how women may respond at the present moment to sexual risk. It might be of interest to also measure women's view of risk in different situations while under the influence of alcohol, as well as their perceived self-efficacy to use a condom. Research in the area of educating women in the use of condoms and the risks of STDs, then having a follow-up to measure behavior may be of value.

In addition, the causes of impulsivity are unknown and therefore research in the etiology of risk-taking behaviors should be further investigated. Though useful, scales measuring levels of impulsivity do not provide information in what influences the development of this personality trait nor do they measure executive functions that control such behaviors. Information in this area could further assist in the prevention of high-risk behaviors such as unprotected sex.

Another limitation to this study is the implicit risk of pregnancy that was not addressed in the vignettes. When participants were asked to indicate how much they agreed with having unprotected sex in the particular situation as being risky, responses may have been different if Nicole was on a birth control pill. Responses may have been different for the importance of

using a condom in the particular situation as well. Participants may have been more likely to assume risk and importance more from the fear of getting pregnant than of contracting STDs. If pregnancy was ruled out (since many women do take birth control pills), it is possible that the responses may reflect more accurately the woman's views of risk.

## CONCLUSIONS

## **Implications**

Given that young adults are at such a high risk for sexually transmitted diseases, it is very important to provide the tools necessary for these adults to begin risk reduction. It is especially important to educate and empower today's young women and the women of tomorrow to protect themselves and not rely on the other person to assert the protection. As women all know, relying on partner will frequently result in no protection at all. Since it is known that STDs have a much higher impact on women and that there are several diseases that complicate women's lives while there is no test currently available for these diseases for men as they are often asymptomatic, women must take the initiative to protect themselves at all cost.

Seeing that women may view a new partner as a high risk for STDs does not necessarily mean women believe in themselves to always be able to assert protection for themselves.

Apparently, women have less faith in suggesting the use of a condom with a new partner or a casual partner when alcohol is involved. The more a woman drinks, the more likely she is to put herself at risk, unless she is with a steady partner. This implies that women's expectations and acceptance of what happens when alcohol is involved must change. A campaign to encourage women to adopt the attitude that it is unacceptable to not use a condom even under the influence of alcohol would be beneficial.

Public education for young women in the risks of any partner type, whether a man is well known by the woman or a complete stranger, is critical. Women need to be educated that even if a man has been tested for STDs, there are many diseases that affect women but are asymptomatic for men. Perhaps even educating the use, approach, and availability of condoms will increase women's self-efficacy in condom use.

Health educators could extend information in the role of alcohol on risk taking behaviors, particularly in sexual decision-making. Informing young adults on the frequent consequences of alcohol intoxication as well as encouraging alternative activities could be beneficial. Educators could also provide alcohol harm reduction education (through school venues such as freshman seminar) that focuses on risks that accompany intoxication and sexual health.

Since impulsivity is related to risky behaviors such as alcohol use and lack of condom use, as well as lowered self-efficacy, impulsivity could also be targeted. What could be targeted at an earlier age where those who display impulsive behaviors could be taught problem solving skills and controlling risk.

Another possibility to increase women's use and assertiveness to use a condom is making condoms more available and socially acceptable. Perhaps making condom packages "pretty" or discrete as well as campaigning women carrying condoms in their purse in ads could encourage women to always have one available. If feasible, providing free condoms where alcohol is consumed, such as at bars or parties, may allow more thought for protection at a high risk environment as well as provide another salient opportunity for protection for those who are more rash and have forgotten to carry one.

Regardless of the route health educators may choose, understanding those factors that influence women in their decisions in sexual behaviors hopefully will increase the attitude and

behavioral change in women to be more assertive in their own protection. Whether the route is by education in a classroom, campaigning in ads, or even targeting a population, it is essential that women began to take on sexual protection for themselves.

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# Appendix A. Pilot Study Questionnaire (Focus group)

This study is interested in dating and relationships in a woman's perspective. Specifically, the study is to identify the definition of a new partner, casual partner and a steady partner. Please share your personal opinions on what defines these terms.

- 1. How would you define a new partner?
- 2. What characteristics would be used to define a new partner?
- 3. How would you define a casual partner?
- 4. What characteristics would be used to define a casual partner?
- 5. How would you define a steady partner?
- 6. What characteristics would be used to define a steady partner?
- 7. What would differentiate a new partner from a casual partner? A casual partner from a steady partner?
- 8. Review

# Appendix B. Vignette

A party is being held locally in which Tom and Nicole attends. At the party, Tom has a soda and Nicole drinks (soda/few beers). After the party, Tom and Nicole return to her apartment and they begin kissing. Heavy kissing and petting ensued until both agree to have sex. (Following quotes inserted here according to the partner type).

New partner type: "This is the first time Tom and Nicole have had sexual intercourse together". Casual partner type: "They have had a mutual sexual relationship for a while, but it is understood that they may have other partners if so desired. The relationship that they share is mostly physical".

Steady partner type: "They have a mutual commitment to only each other for a while in which they share deep feelings and trust. It is understood between them that no other partner is allowed".

Vignette continued.

It is important to use a condom in this situation.

Strongly-----3-----Strongly Agree Disagree

Having unprotected sex in this situation is risky.

Strongly-----3-----Strongly Agree Disagree

It is Tom's responsibility to ensure a condom is used.

Strongly-----3-----Strongly Agree Disagree

It is Nicole's responsibility to ensure a condom is used.

Strongly-----3-----Strongly Agree Disagree

It is likely that Tom would suggest the use of a condom.

Strongly-----3-----Strongly Agree Disagree

It is likely that Nicole would suggest the use of a condom.

Strongly-----3-----Strongly Agree Disagree

# Appendix C. Modified Quantity and Frequency Index

1. Frequency of alcohol use in the last three months:
a If you have <u>never</u> had an alcoholic beverage (beer, wine or liquor) in your life, check here and go to I.c.
b If you have not had <u>any</u> alcoholic beverage in the <u>LAST THREE MONTHS</u> , check here and go on
to I.c. c. If you checked I.a. or I.b., please check the <u>reasons</u> 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 <u>LAST THREE MONTHS</u> (about 90 days), have you experienced a major change on your drinking habits?
1No, my drinking stayed the same as usual
2Yes, I quit drinking altogether
3Yes, I started drinking for the first time
4. Yes, I started drinking much more than I usually do
5Yes, I started drinking much <u>less</u> than I usually do
II. Varieties of alcohol used in the last three months
a. Think carefully about all the times in the <u>LAST THREE MONTHS</u> that you drank any <u>HARD LIQUOR</u> (including, for example, scotch, gin, bourbon, crème 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 1-2 days/wk 1-3 days/month less than once per month Never (go to II. b.)
2. In the last THREE MONTHS, on average, how much HARD LIQUOR did you drink PER DAY on the days you drank?
4 or more pints
5-7 shots/drinks 3-4 shots/drinks 1-2 shots/drinks
b. Think carefully about all the times in the <u>LAST THREE MONTHS</u> that you drank any <u>WINE</u> (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  1-3 days/month  less than once per month  Never (go to II. c.)

days you drank?  _ 5 fifths or more 3-4 fifths 2 fifths 1 fifth _ 16 oz (3-4 wine glasses or 2 water glasses) 8 oz (1-2 wine glasses)  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		2. In the last THREE MONTHS, on average, how much WINE did you drink PER DAY on the
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	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 (go to III.)  2. In the last THREE MONTHS, on average, how much BEER did you drink PER DAY on the days you drank?  16 or more 12 oz cans or bottles (or 6 or more quarts)  13-15 12 oz cans or bottles (5-6 quarts)  11-12 12 oz cans or bottles (3-4 quarts)  8-10 12oz cans or bottles (3-4 quarts)  1-2 12 oz cans or bottles (1-2 quarts)  1-2 12 oz cans or bottles  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 Thursday's, when I would get together with friends, I would drink about three 12 oz beers and two mixed drinks").  1. Estimated average drinking on a TYPICAL WEEKDAY in the LAST THREE MONTHS:  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:	16 oz (3-4 wine glasses or 2 water glasses) 8 oz (1-2 wine glasses)
<ul> <li>a. People often drink more than one type of alcoholic beverage on a given day. In addition, their drinkin 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 Thursday's, when I would get together with friends, I would drink about three 12 oz beers and two mixed drinks").</li> <li>1. Estimated average drinking on a TYPICAL WEEKDAY in the LAST THREE MONTHS:</li> <li>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.</li> </ul>	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 Thursday's, when I would get together with friends, I would drink about three 12 oz beers and two mixed drinks").  1. Estimated average drinking on a TYPICAL WEEKDAY in the LAST THREE MONTHS:  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:	c. Think carefully about all the times in the <u>LAST THREE MONTHS</u> 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
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 Thursday's, when I would get together with friends, I would drink about three 12 oz beers and two mixed drinks").  1. Estimated average drinking on a TYPICAL WEEKDAY in the LAST THREE MONTHS:  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.	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 Thursday's, when I would get together with friends, I would drink about three 12 oz beers and two mixed drinks").  1. Estimated average drinking on a TYPICAL WEEKDAY in the LAST THREE MONTHS:  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:	III. Quantity of alcohol used in the last three months
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.	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:	TYPICAL WEEKDAY on which you drank, and estimate the amounts of each of these three beverages you had to drink. (Example: "On Thursday's, when I would get together with friends, I would drink
typically drank, and estimate your average drinking on that day.	typically drank, and estimate your average drinking on that day.  2. Estimated average drinking on a TYPICAL WEEKEND DAY in the LAST THREE MONTHS:	1. Estimated average drinking on a TYPICAL WEEKDAY in the LAST THREE MONTHS:
typically drank, and estimate your average drinking on that day.	typically drank, and estimate your average drinking on that day.  2. Estimated average drinking on a TYPICAL WEEKEND DAY in the LAST THREE MONTHS:	
2. Estimated average drinking on a TYPICAL WEEKEND DAY in the LAST THREE MONTHS:		
	3 Finally of all the days in the last three months, what is the LARGEST AMOUNT of alcohol you have	2. Estimated average drinking on a TYPICAL WEEKEND DAY in the LAST THREE MONTHS:
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?		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?

# Appendix D. Condom Use Self-Efficacy Scale

In the space provided, please indicate the extent to which you agree or disagree with each of the following statements. Please respond to each item as honestly as you can. Please use the following scale:

	SA: STRONGLY AGREE
	A: AGREE
	<b>N:</b> NEITHER AGREE nor DISAGREE
	<b>D:</b> DISAGREE
	SD: STRONGLY DISAGREE
1.	I feel confident in my ability to put a condom on myself or a partner.
2.	I feel confident I could purchase condoms without feeling embarrassed.
3.	I feel confident I could remember to carry a condom with me should I need one.
4.	I feel confident in my ability to discuss condom usage with any partner I might have.
5.	I feel confident in my ability to suggest using condoms with a new partner.
6.	I feel confident I could suggest using a condom without my partner feeling diseased.
7.	I feel confident in my own or my partner's ability to maintain an erection while using a condom.
8.	I would feel embarrassed to put a condom on myself or my partner.
9.	If I were to suggest using a condom to a partner, I would feel afraid that he
	or she would reject me.
10.	If I were unsure of my partner's feelings about using condoms, I would not suggest using one.
11.	I feel confident in my ability to use a condom correctly.
12.	I would feel comfortable discussing condom use with a potential sexual partner before we ever had any sexual contact (e.g. hugging, kissing, caressing, etc.).
13.	I feel confident in my ability to persuade a partner to accept using a condom when we have sexual intercourse.
14.	I feel confident I would gracefully remove and dispose of a condom after sexual intercourse.
15.	If my partner and I were to try to use a condom and did not succeed, I would feel embarrassed to try to use one again (e.g., not being able to
	unroll a condom, putting it on backwards, or awkwardness).
16.	I would not feel confident suggesting using condoms with a new partner
	because I would be afraid he or she would think I've had a past
	homosexual experience.
17.	I would not feel confident suggesting using condoms with a new partner because I would be afraid he or she would think I have a sexually
	transmitted disease.

NEITHER AGREE nor DISAGREE N: D: DISAGREE SD: STRONGLY DISAGREE 18. I would not feel confident suggesting using condoms with a new partner because I would be afraid he or she would think I thought they had a sexually transmitted disease. I would feel comfortable discussing condom use with a potential sexual 19. partner before we ever engaged in foreplay. 20. I would feel confident in my ability to incorporate putting a condom on myself or my partner into foreplay. 21. I feel confident that I could use a condom with a partner without "breaking the mood " 22. I feel confident in my ability to put a condom on myself or my partner quickly. 23. I feel confident I could use a condom during intercourse without reducing any sexual sensations. 24. I feel confident that I would remember to use a condom even after I have been drinking. 25. I feel confident that I would remember to use a condom even if I were high. 26. If my partner didn't want to use a condom during intercourse, I could easily convince him or her that I was necessary to do so. I feel confident that I could use a condom successfully. 27. I feel confident I could stop to put a condom on myself or my partner even 28.

in the heat of passion.

SA:

A:

STRONGLY AGREE

**AGREE** 

# Appendix E. UPPS Impulsive Behavior Scale

Below are a number of statements that describe ways in which people act and think. For each statement, please indicate how much you agree or disagree with the statement. If you **Agree Strongly** circle **1**, if you **Agree Somewhat** circle **2**, if you **Disagree Somewhat** circle **3**, and if you **Disagree Strongly** circle **4**. Be sure to indicate your agreement or disagreement for every statement below. Also, there are a few more questions on the next page.

questions on the next page.	Agree		Disagree	
1 11	Strongly	Some	Some	Strongly
1. I have a reserved and cautious attitude toward life.	1	2	3	4
2. I have trouble controlling my impulses.	1	2	3	4
3. I generally seek new and exciting experiences and sensation		2	3	4
4. I generally like to see things through to the end.	1	2	3	4
5. My thinking is usually careful and purposeful.	1	2	3	4
6. I have trouble resisting my cravings (for food, cigarettes,	1	2	3	4
etc.).		2	3	
7. I'll try anything once.	1	2	3	4
8. I tend to give up easily.	1	2	3	4
9. I am not one of those people who blurt out things without	1	2	2	4
thinking.	1	2	3	4
10. I often get involved in things I late wish I could get out of		2	3	4
11. I like sports and games in which you have to choose your		•	2	4
next move very quickly.	1	2	3	4
12. Unfinished tasks really bother me.	1	2	3	4
13. I like to stop and think things over before I do them.	1	2	3	4
14. When I feel bad, I will often do things I later regret in ord	ler			
to make myself feel better now.	1	2	3	4
15. I would enjoy water skiing.	1	2	3	4
16. Once I get going on something I hate to stop.	1	2	3	4
17. I don't like to start a project until I know exactly how to		_		
proceed.	1	2	3	4
18. Sometimes when I feel bad, I can't seem to stop what I ar	n			
doing even though it is making me feel worse.	1	2	3	4
19. I quite enjoy taking risks.	1	2	3	4
20. I concentrate easily.	1	2	3	4
21. I would enjoy parachute jumping.	1	2	3	4
22. I finish what I start.	1	2	3	4
23. I tend to value and follow a rational, "sensible" approach				
to things.	1	2	3	4
24. When I am upset I often act without thinking.	1	2	3	4
25. I welcome new and exciting experiences and sensations,				
even if they are a little frightening and unconventional.	1	2	3	4
26. I am able to pace myself so as to get things done on time.	1	2	3	4
27. I usually make up my mind through careful reasoning.	1	2	3	4
28. When I feel rejected, I will often say things that I later reg	eret. 1	2	3	4
29. I would like to learn to fly an airplane.	1	2	3	4
30. I am a person who always gets the job done.	1	2	3	4
31. I am a cautious person.	1	2	3	4
32. It is hard for me to resist acting on my feelings.	1	2	3	4
33. I sometimes like doing things that are a bit frightening.	1	2	3	4
Please go to the next page	-	=	-	<del>-</del>
reade go to the next page				

	Agree Strongly	Agree Some	Disagree Some	Disagree Strongly
34. I almost always finish projects that I start.	1	2	3	4
35. Before I get into a new situation I like to find out what to expect from it.	1	2	3	4
36. I often make matters worse because I act without thinkin when I am upset.	g 1	2	3	4
37. I would enjoy the sensation of skiing very fast down a hi mountain.	gh 1	2	3	4
38. Sometimes there are so many little things to be done that just ignore them all.	I 1	2	3	4
<ul><li>39. I usually think carefully before doing anything.</li><li>40. Before making up my mind, I consider all the advantages</li></ul>	1	2	3	4
and disadvantages.	1	2	3	4
41. In the heat of an argument, I will often say things that I later regret.	1	2	3	4
<ul><li>42. I would like to go scuba diving.</li><li>43. I always keep my feels under control.</li></ul>	1 1	2 2	3	4 4
<ul><li>44. I would enjoy fast driving.</li><li>45. Sometimes I do impulsive things that I later regret.</li></ul>	1 1	2 2	3	4 4

22-25	26-29	30 and older	
	26-29	30 and older	
2			
uate, special	student, etc.)		
I			
f you never h	ave had sex, who	om do you think you w	vould have
3	4	5	
Equally men and women	Mostly women	Only women	
ould your pu	rpose be of using	one?	
had sexual in			
	3 Equally men and women  yould your pure	or partner  g  If you never have had sex, who  3	or partner  g  If you never have had sex, whom do you think you w  3

If you marked currently inactive or never had sexual intercourse, leave I. and J. blank and follow the instructions at the bottom of the last page.

I. If currently sexually active (as stated above), was a condom used in the last sexual encounter?

1.\_\_ Yes 2.\_\_ No

J. Think about the number of times you had sexual intercourse over the <u>past 3 months</u>. About what percentage of the time did you use a condom? (Circle one)

0 10 20 30 40 50 60 70 80 90 100

# Appendix G. Informed Consent, Focus Group

You have been asked to be in a study of social judgment involving heterosexual dating relationships and situations. You will be receiving course credit for completing this study and it will take you about 90 minutes. These questions will not be about <u>your</u> relationships, but only hypothetical relationships. Please note that there is nothing of an obscene nature in the group, but some people will find these questions disturbing or offensive and may not want to participate in the study because they don't want to be exposed to such questions. Remember that your answers are totally confidential, but if you are not comfortable being asked questions about dating and sex please let the Experimenter know now that you do not wish to participate.

Some of your answers will be noted in writing by the Experimenters and will be kept <u>completely confidential</u>. The only time we need to know your real name is for your signature on this form

Please note that the focus group is <u>completely confidential</u> and if, at any time, you feel that you must terminate the session, please do so by saying "I want to stop," out loud. You can terminate your participation in the focus group without giving a reason and we will not ask for one. However, if you have questions, please ask the Experimenter. You will be given a copy of this consent form to take with you.

### Consent

In signing this form, I acknowledge that I have read the statement above and agree with the terms. All my questions have been answered by the Experimenter to my satisfaction. I know my participation is voluntary, and that the Experimenters from this laboratory will not record my name on any experimental forms. I agree to participate and I know I will be given course credit when I finish the session.

		/
Name (Please Print)	Signature	Today's date
Experimenter Signature		

If you have later questions about this experiment, or if you want information about the study results, you may contact the Principal Investigator, Nina Hayhurst, in the UNCW Psychology department by email (NLH1291@uncw.edu) or Dr. Lee Jackson by email (jacksonl@uncw.edu) or by phone (910-962-3376). If you want more information on your rights as a research participant, please contact Dr. Candace Gauthier, Chair, Institutional Review Board of UNCW (Gauthier@uncw.edu) or (910) 962-3558.

Appendix H. Informed Consent, Primary Study

You have been asked to participate in a study concerning the relationship of personality factors, a person's behavior, sexual health, and drinking patterns. In this survey, you will be asked a series of questions about various aspects of each of these in yourself during the last two years and especially in the last three months. You will also be asked to give your judgments about people's behavior described in a vignette. Please note that there is nothing of an obscene nature in the study, but some people will find these questions disturbing or offensive and may not want to participate in the study or answer specific questions because they don't want to be exposed to such questions. The survey should take you about 45 minutes and you will receive course credit for completing it.

Please remember when filling out these forms that your answers are <u>completely</u> <u>anonymous</u>, so be as honest and accurate as you can. In addition, this study is <u>completely</u> <u>voluntary</u>. If you look over the survey and decide you don't want to participate, you can turn in your blank form and leave, without giving a reason and we won't ask for one. You may also refrain from answering any specific item and you will still receive full credit. While answering the questions, you **may stop at any time** without being questioned or penalized. However, if you have questions, please ask the Experimenter.

### Consent

In signing this form, I acknowledge that I have read the statement above and agree with the terms. All my questions have been answered by the Experimenter to my satisfaction. I know my participation is voluntary and that my survey responses will be kept anonymous. I agree to participate and I know I will be receiving course credit when I return the survey to the Experimenter. You will be given a copy of this consent form to take with you.

N (NI D: ()		//
Name (Please Print)	Signature	Today's date
Experimenter's Signature	<del>-</del>	

If you have later questions about this experiment, or if you want information about the study results, you may contact the Principal Investigator, Nina Hayhurst, in the UNCW Psychology department by email (NLH1291@uncw.edu) or Dr. Lee Jackson by email (jacksonl@uncw.edu) or by phone (910-962-3376). If you want more information on your rights as a research participant, please contact Dr. Candace Gauthier, Chair, Institutional Review Board of UNCW (Gauthierc@uncw.edu) or (910) 962-3558.