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The effects of acute alcohol intoxication on women's perception of and responses to high risk dating and social situations

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THE EFFECTS OF ACUTE ALCOHOL INTOXICATION ON WOMEN'S PERCEPTION OF AND RESPONSES TO HIGH RISK DATING AND SOCIAL SITUATIONS

by

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DISSERTATION

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DEDICATION

In memory of my grandparents, Ralph and Eleanor Garcia, who had unlimited support for me in my education and life. And who taught me the value of hard work and perseverance. And to my beautiful daughter Eleanor, you kept me grounded during the process and motivated to finish.

You have brains in your head. You have feet in your shoes. You can steer yourself any direction you choose. You're on your own. And you know what you know. And YOU are the one who'll decide where to go...

— Dr. Seuss, *Oh, the Places You'll Go!*

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ABSTRACT

This study examined how alcohol intoxication, victimization history, and sexual attitudes affect women's perception of and responses to high risk dating and social situations. One hundred and seventeen college women were randomly assigned to an alcohol or control (no-alcohol) condition. Participants read 15 vignettes describing high risk dating and social situations, rated the degree of victimization risk in each situation, and indicated how likely they would be to respond to each situation in a passive, acquiescent, assertive, and aggressive way. Results revealed that, regardless of condition, women with more liberal sexual attitudes made lower risk ratings than women with less liberal sexual attitudes. In addition, women in the alcohol condition reported that they would respond in a more acquiescent way to the situations than women in the control group. Women with a more severe victimization history in the alcohol condition reported they were more likely to respond acquiescently than women in the control group. Surprisingly, women with more liberal sexual attitudes assigned to the alcohol condition reported that they would respond in a less passive way to the situations than women in

the alcohol group with less liberal sexual attitudes. Results suggest that preventative interventions for college women might address the relationship between alcohol use and liberal sexual attitudes and women's risk for sexual victimization.

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Introduction and Background

Research has demonstrated that sexual victimization is prevalent among college women (Fisher, Cullen, & Turner, 2000; Koss, Gidycz, & Wisniewski, 1987). Fifty four percent of women in college report having experienced some type of sexual victimization since the age of 14, ranging from unwanted sexual contact to attempted and completed rape (Humprey & White, 2000; Koss et al., 1987). When estimating annual incidence, between 4.7 to 5.15% of college women will experience completed rape (Kilpatrick et al., 2007) compared with .03 to .94% of women in the general population (Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004; Sorenson, Stein, Seigel, Golding, & Burnam, 1987; Tjaden & Thoennes, 2000), a rate that is approximately three times greater for college women.

Sexual victimization has been linked to numerous consequences. Victims report a wide range of problems including depression (Atkeson, Calhoun, Resick, & Ellis, 1982; Kilpatrick, Resick, & Veronen, 1981; Thompson & Kingree, 2010; Ullman & Brecklin, 2003), Post-Traumatic Stress Disorder (PTSD; Arata & Burkhart, 1995; Cloitre, Scarvalone, & Difede, 1997; Faravelli, Giugni, Salvatori, & Ricca, 2004; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993; Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992, Ullman & Brecklin, 2003), sexual dysfunction (Ellis, Calhoun, & Atkeson, 1981; Faravelli et al., 2004), alcohol-related problems (Thompson & Kingree, 2010; Ullman & Brecklin, 2003), and other social adjustment problems (Atkeson et al., 1982).

Once a woman has been sexually victimized, she is at an increased risk for future victimization (Gidycz, Coble, Latham, & Layman 1993; Himelein, 1995; Koss & Dinero, 1989; Mandoki & Burkhart, 1989; Wyatt, Guthrie, & Notgrass, 1992). Unfortunately, the

mechanisms responsible for sexual victimization, and the perplexing relationship between sexual victimization and subsequent revictimization, have yet to be identified completely. Research has, however, identified several behavioral, contextual, and interpersonal factors that appear to increase a woman's risk of experiencing sexual assault. One promising factor to date has been alcohol use (Abbey, Zawacki, & McAuslan, 2000; Corbin, Bernat, Calhoun, McNair, & Seals, 2001; Davis, George, & Norris, 2004; Gidycz, McNamara, & Edwards, 2006; Muehlenhard & Linton, 1987; Norris, 1994; Testa, Livingston, & Collins, 2000).

Alcohol Use and Sexual Victimization

Over half of the incidents of sexual victimization in college women occur when either the woman or the perpetrator have consumed alcohol (Abbey, 2002; Abbey, McAuslan, & Ross, 1998; Mohler-Kuo et al., 2004; Muehlenhard & Linton, 1987; Testa & Livingston, 2000a; Testa, Livingston, VanZile-Tamsen, & Frone, 2003). In a study of college women examining alcohol as a risk factor for sexual victimization, 1 in 20 women reported an assault since the beginning of the school year, with 72% of these assaults occurring when the woman was intoxicated and unable to consent (Mohler-Kuo et al., 2004). Given the strong association between sexual assault and alcohol use, it is important to better understand how alcohol use increases women's risk of sexual victimization (Abbey, 2002; Koss & Dinero, 1989; Muehlenhard & Linton, 1987; Testa, et al., 2003).

Although alcohol use is correlated with sexual victimization, there is some debate over whether it is the cause or consequence of a sexual assault experience (Burnam, et al., 1988; Gidycz et al., 2007; Kilpatrick Acierno, Resnick, Saunders, & Best, 1997;

Miranda, Meyerson, Long, Marx, & Simpson, 2002). Researchers have used both cross-sectional and longitudinal studies to understand the relationship between alcohol use and sexual victimization. Several researchers have hypothesized that alcohol consumption may be a strategy to reduce the experience of traumatic symptoms resulting from the assault. In an examination of a national sample of sexual assault victims, 16% reported problems with alcohol after the assault compared to 8% of victims in the general population (Burnam et al., 1988; Miranda et al., 2002). In addition, in a sample of college students, Miranda et al. (2002) found that women with a severe sexual victimization history were more likely to drink at a higher frequency and quantity. Although these studies highlight alcohol consumption as a consequence of sexual victimization, it is difficult to determine if alcohol use is a consequence of victimization based on retrospective studies alone.

In contrast, several prospective studies have found conflicting results about the effect of previous victimization on problem drinking and revictimization. Testa and Livingston (2000a) observed that previous victimization did not predict increased alcohol use or alcohol problems during the 12 month follow-up period after an assault, but alcohol use was correlated with increased risk for sexual victimization. Kilpatrick et al. (1997) demonstrated that if a woman experienced an assault, alcohol consumption increased following the assault in a sample of community women. However, they also found that alcohol use did not increase the odds of a subsequent victimization experience. In addition, Gidycz et al. (2007) examined the relationship between alcohol use, risk perception, and sexual victimization. They revealed that a history of victimization increased a woman's risk for revictimization and that this relationship was moderated by

an increase in alcohol use by women with a victimization history. However, a history of sexual victimization at baseline did not predict problem drinking during the course of the study (Gidycz et al., 2007). More recently, Testa and colleagues (2010) observed that the relationship between victimization and revictimization was mediated by risky alcohol and sexual behaviors. In fact, adolescents with a history of sexual victimization were at increased risk for engaging in college risk behaviors such as multiple sexual partners, hookups, heavy episodic drinking, and involvement in heavy drinking contexts. Participation in these behaviors was predictive of revictimization during the first and second semesters of college (Testa, Hoffman, & Livingston, 2010). In sum, research demonstrates an important relationship between alcohol consumption and risk for sexual victimization. However, previous studies have used self-report data, which does not allow the opportunity to identify the process by which alcohol use increases risk in the sexually risky situations. The use of alcohol administration studies allows for this investigation.

Alcohol Administration Studies

To better understand how alcohol use is related to risk for sexual victimization, several researchers have examined women's risk recognition and/or their responses to risky situations under conditions of alcohol intoxication (Davis, 2000; Davis, George, & Norris, 2004; Davis, Stoner, Norris, George, & Masters, 2009; Pumphrey-Gordon & Gross, 2007; Stoner, Norris, George, Davis, Masters, & Hessler, 2007; Testa, Livingston, & Collins, 2000b; Testa, VanZile-Tamsen, Livingston, & Buddie, 2006). These researchers have hypothesized that intoxication may affect a woman's ability to recognize risk, a woman's ability to respond in a way that reduces her risk, or both. The

predominant theory used to explain this relationship is alcohol myopia theory (AMT), which posits that women, under the influence of alcohol intoxication, have limited cognitive capacity and are able to respond to only the most salient cues in the environment (Steele & Josephs, 1990). This narrowing of focus on the most salient cues, primarily impelling or instigatory cues (e.g. the desire to begin a relationship with the man), may account for women's limited ability to make effective choices in situations that contain both risk cues as well as socially motivating cues. Alcohol myopia theory posits that alcohol impairment occurs on inhibitory cues (e.g. danger or risk cues) thus making it more difficult for women to attend to cues that may lead her to act cautiously and instead increases her focus on the cues that will facilitate a relationship. For example, a woman may be on a date with a man whom she has previously dated but has not decided if she wants to pursue a sexual relationship. In a situation where they are drinking and he makes a sexual advance, she may focus on the potential relationship gain by responding positively to his advance rather than noticing that she is now at increased risk for an unwanted sexual experience. The following studies have utilized this experimental methodology to test various aspects of these relationships.

Testa et al. (2000b) were interested in testing the effect of alcohol intoxication on women's risk perceptions of and responses to a sexually risky situation. In the situation described, information was also provided that suggested the woman and man may have the potential for developing a relationship. Testa et al. (2000b) assigned women to one of three groups: (a) a no-alcohol control group, (b) an expectancy group (expected to receive alcohol but did not), and (c) an alcohol group. Women then were asked to read a vignette in which a man that the woman had dated previously comes over with beer and a pizza.

The vignette was written to depict both the potential for establishing a relationship with the man and the potential risk for having an unwanted sexual experience. Women were asked to imagine themselves as the woman in the vignette and write an ending to the story. Next, they were asked to rate, using a Likert scale, how likely the outcome to the situation would have negative consequences and positive consequences. To measure risk recognition, women were also asked to rate how likely they would be to engage in six behaviors that might help establish a relationship with the man while also increasing their risk for an unwanted sexual experience. These behaviors included: (a) invite the man in, (b) kiss him, (c) have sex with him, (d) make out with him, (e) let him sleep over, and (f) drink beer with him. For the story ending analyses, women reported more concerns about the relationship than experiencing unwanted sexual advances. Participants indicated that they could successfully limit these unwanted advances. There were no differences in story endings between the alcohol, control, and expectancy conditions. However, women in the alcohol condition were more likely than women in the expectancy and no alcohol conditions to (a) perceive positive outcomes for sexual behavior, (b) perceive fewer negative consequences for engaging in sexual behavior with the man, and (c) describe the man favorably. In addition, women in the alcohol condition reported that they were more likely to engage in higher levels of risky sexual behavior with the man described (i.e. make out with the man, let him sleep over) than women in the expectancy and no alcohol conditions. There were no significant differences between participants in the expectancy and no-alcohol conditions. Sexual victimization history was included initially as a covariate; however, this variable was unrelated to any of the outcome measures and was not included in final analyses.

Davis (2000) was interested in examining how alcohol intoxication would affect women's ability to identify risk and respond to a hypothetical sexually risky situation. Davis (2000) used an alcohol by no-alcohol group design to measure women's risk recognition and response choices to a sexually risky situation. Risk recognition was measured by asking women to indicate when the man had gone too far (i.e., called response latency). Response latency has been hypothesized to measure risk recognition, with longer time lapses indicating a deficit in risk recognition (Marx & Gross, 1995). Davis (2000) hypothesized that women who were intoxicated would exhibit longer response latencies to a sexually risky dating scenario than women in the control group. Davis (2000) also hypothesized that women in the alcohol group would respond more forcefully to the man's advances than women in the control group. Results of this study indicated that women in the alcohol group exhibited longer response latencies; however, women in the alcohol group did not choose more forceful responses to the man's advances in the scenario, indicating that acute intoxication may interrupt potential responses that could reduce the likelihood of having a sexual victimization experience. In sum, this study provides some evidence that alcohol intoxication may lower risk recognition and reduce the effectiveness of responses to a sexually risky situation. This study did not examine differences between previously victimized and non-victimized women.

Davis et al. (2004) conducted a study to examine the effect of alcohol intoxication on women's responses to a sexually risky scenario. Women were assigned to either an alcohol condition or a no-alcohol control condition. A single vignette was presented describing a dating episode in which a variety of previously determined risk cues were

present (Muehlenhard & Linton, 1987), including consumption of alcohol by the male, the couple remaining isolated, and the woman being driven by the male. Women were then instructed to imagine they had either a casual relationship with the male character (defined as a low-conflict situation) or a serious relationship with the male character (defined as a high-conflict situation) as they read the vignette. In both the low and high conflict situations, the woman was described as being uninterested in having sexual intercourse at that time. Participants were then told that the man attempted to engage in a variety of sexual behaviors with the woman. These behaviors included: (a) kissing/breast fondling, (b) genital touching/intercourse desire, and (c) rape threat (aggressive sexual contact with strong demand for intercourse). For each behavior, women were asked to rate the likelihood of responding to each in an (a) assertive, (b) passive, (c) polite, and (d) consensual manner. Results of this study indicated that (a) women in the alcohol condition were more likely than women in the no-alcohol condition to consent to sexual advances made by the man; (b) women in the alcohol condition were more likely than women in the no-alcohol condition to choose passive responses when faced with unwanted advances; (c) women told that they were in a serious relationship with the man (high-conflict situation) were more likely than women told that they were not in a serious relationship with the man (low-conflict situation) to consent to the sexual advances; and, (d) women in both groups were more likely to resist the man's sexual advances when the threat of rape was imminent. Overall, the results of this study suggest that alcohol intoxication may influence women to respond to unwanted sexual advances in a way that may potentially increase their risk of sexual victimization.

Testa et al. (2006) conducted two studies investigating the role of alcohol intoxication on women's ability to identify risk in a dating situation and to determine the amount of resistance a woman may use to reduce her risk for sexual victimization. In the first study, women were recruited from a bar and were grouped into high BrAC (.06 or higher) and low BrAC (below .06) based on a breathalyzer test. They were then asked to imagine themselves in a situation that included both the potential for establishing a relationship and the potential to be the victim of mild aggression. Risk recognition was measured by asking women to rate the likelihood of the situation ending in four positive outcomes (e.g. "another date with the man") or six negative outcomes (e.g. "concern for personal safety"). Women were also asked to indicate the likelihood of responding to the man in three different ways: direct ("Tell him clearly and directly that I want him to stop"), passive ("Just go along with what he is doing"), or polite resistance ("Make an excuse as to why I don't want to have sex") (Testa et al., 2006). Women in the high BrAC group reported less risk in the hypothetical scenario than women in the low BrAC group. Alcohol consumption was negatively associated with direct or polite resistance and positively associated with passive responses. Path analysis was used to determine that the relationship between higher levels of intoxication and direct resistance was mediated by risk recognition indicating that alcohol intoxication reduced risk recognition which predicted reduced likelihood of endorsing direct or polite resistance in a sexually risky situation.

In the second study, Testa et al. (2006) assessed the role of alcohol on risk recognition and women's intentions to resist sexual advances in a laboratory study. The same hypothetical situation previously described was used in an alcohol administration

design. An additional section was added that described the male character escalating in sexual aggression. Women were assigned to one of three groups: an alcohol condition (target BAC = .08%), an expectancy condition, or a no-alcohol condition. They were asked to respond to the previously described hypothetical scenario and were instructed that they were also interested in establishing a relationship with man in the scenario. Half of the sample was asked to respond after reading both the first part and the second part of the vignette, providing a within-subjects comparison between the high-conflict part of the scenario (Time 1) and the low-conflict part of the scenario (Time 2). The other half of the sample was randomly assigned to read and respond to either the first half (Time 1) or read the entire scenario and respond. Risk recognition was measured by asking women to rate the likelihood of the situation ending in four positive outcomes (e.g. "another date with the man") or six negative outcomes (e.g. "concern for personal safety"). Results of this study indicated that women who consumed alcohol, compared with women in the control or placebo group, perceived less risk in the scenario and were more likely to report intentions to respond politely or passively to the man's advances. There was an interaction with time, such that as women progressed from Time 1 to Time 2, all three groups reported greater risk and their intentions to engage in direct or polite resistance increased. Risk perception was positively correlated with a woman's reported intention to use direct resistance and negatively correlated with her intention to engage in sexual behaviors with the man. The relationship between alcohol consumption and direct resistance was mediated by risk recognition but only at Time 2 (i.e. following serious aggression). This result differs from the previously described bar study. In sum, the

results of this study provide evidence that the relationship between alcohol consumption and women's intended responses may be partially mediated by risk recognition.

Pumphrey-Gordon and Gross (2007) investigated the role of alcohol intoxication on risk recognition and refusal of sexual advances. Women were randomized to one of four groups: (a) an alcohol group (target BAC = .05), (b) a control group (no alcohol), (c) an expect alcohol (false BAC reading = .049), and (d) expect no alcohol but receive alcohol (target BAC = .049; false BAC reading = .00). Women were then asked to listen to an audio taped vignette of a sexual interaction between two college students (Marx & Gross, 1995). Women were instructed to press a button when they believed the "man in the vignette had gone too far". Response latency was used as a measure of risk recognition. After the participant had completed the risk recognition task, she was then asked to explain verbally how she might respond to the situation. Responses were coded on a scale that ranged from 1 (no clear refusal) to 7 (clear refusal and escape). Women also completed a self-report measure of sex-related alcohol expectancies.

Results of this study showed no differences between the groups with respect to response latency. In addition, no main effects were found between victimized and nonvictimized women on response latency or resistance scores. However, women in the alcohol condition reported lower resistance scores than women in the other three groups. An interaction was found such that women who believed alcohol affected their sexual behavior provided less resistant refusal responses when they expected to receive alcohol than women assigned to the expected no alcohol group. For women administered alcohol, BAL and sex-specific alcohol expectancies predicted resistance scores (Pumphrey-Gordon & Gross, 2007). This study provides additional evidence that alcohol

may affect how women respond to risky situations and that a woman's alcohol expectancies may play a role in this process.

Stoner et al. (2007) examined the role of alcohol intoxication and history of sexual victimization on responses to a sexually risky dating vignette. Women were randomized into one of four groups: (a) control group, (b) placebo group (expect alcohol), (c) moderate dose group (BAC= .04), and (d) a high dose group (BAC = .08). A single vignette was used that described a man and woman watching a movie with friends. As the story progressed, the male character escalated in aggressive behavior toward the woman. The story ends with the man suggesting that he intends to assault the woman. Secondary appraisals were measured (e.g. concern for the man's feelings, uncertainty about the situation, and shock at what had occurred) prior to the end of the story presentation as sexual aggression escalated. In addition, conflict was assessed using two questions, one inquiring how difficult it was for the woman to go along with the advances, and one inquiring how difficult it was to resist the advances. After the end of the vignette was presented, women were assessed on their likely response to the situation using 12 items that represented three types of resistance: assertive, polite, or passive resistance, based on previous research (Davis et al., 2004). Women were asked to indicate how likely they were to respond in each way on a 7-point Likert scale.

Path analysis was used to examine direct and indirect effects of appraisals on resistance strategies, the direct and indirect effects of alcohol on appraisals and resistance strategies, and the direct and indirect effects of victimization history on appraisals and resistance strategies. Conflict, uncertainty, and shock were related to resistance intentions. Additionally, results suggested that participants who had a higher alcohol

dose reported higher conflict and higher uncertainty than participants in the control and placebo groups. The relationship between alcohol intoxication and resistance strategies was mediated by concern for the man, uncertainty about the situation, and shock at the actions of the male character. Alcohol did not have a direct effect on any of the resistance intentions. Additionally, Stoner et al. (2007) found women in the alcohol group who expressed high levels of conflict in the situation reported they were less likely to use assertive resistance, more likely to use passive resistance, and were more likely to consent. Moreover, an indirect relationship was found such that women who consumed alcohol had higher levels of uncertainty about the situation, which increased the chances of responding politely. This study provides evidence that alcohol has an effect on resistance strategies through secondary appraisals. Additionally, the pathway from a history of victimization to resistance strategies was mediated by secondary appraisals (i.e. feeling uncertainty about the situation, concern for the man, and conflict over going along or ending the sexual advances), such that women with a more severe victimization history chose less assertive responses. Additionally, previously victimized women reported higher conflict and higher uncertainty, which was then related to passive and polite resistance strategies. This study provides evidence that alcohol intoxication and victimization history are related, through secondary appraisals, to resistance strategies that women use in risky dating situations.

Davis et al. (2009) conducted two studies to better understand the role of alcohol intoxication on risk recognition. In both studies, a single vignette was presented describing a social interaction between a man and a woman in which the man makes increasing sexual demands during the dating episode. Risk cues in the first part of the

story were “ambiguous” and included details such as the woman depending on the man for transportation, being isolated from others, and the man consuming alcohol. Risk cues in the second part of the story were considered “clear” and included details such as unwanted sexual advances, the man using physical restraint, and the man demanding intercourse. In the first study, women were assigned to a control condition or an alcohol condition with a target BAC of .06%. Women were presented with the written vignette and asked to rate how aware they were of the ambiguous cues in the first part and the clear cues in the second part. Risk recognition was measured using ratings of awareness and discomfort. Women in the alcohol condition reported less awareness of ambiguous risk cues and less discomfort with clear risk cues than women in the control condition. However, women in both conditions were aware of clear risk cues. In addition, women in the control condition reported greater discomfort when presented with clear risk cues rather than ambiguous cues. This differed from women in the alcohol condition, who reported roughly equal levels of discomfort for both ambiguous and clear risk cues (Davis et al., 2009). In sum, moderate intoxication appeared to interfere with women’s risk recognition of ambiguous cues and reduce discomfort when cues were recognized.

In the second study (Davis et al., 2009), women were randomized to one of four conditions, a control condition, a placebo condition, a low dose condition (target BAC = .04%) and a high dose condition (target BAC = .08%) to determine if various levels of intoxication affect women’s awareness of and discomfort with risk cues in the previously described vignette. Results of this study indicated women in the high dose condition were least likely to report complete awareness of all ambiguous cues compared with women in the other three conditions. Both women in the high and low dose alcohol

conditions reported less discomfort than women in the control condition with all risk cues. No differences existed between groups on reported awareness of clear risk cues. However, women in all groups reported greater discomfort for clear risk cues than for ambiguous risk cues. Women in the placebo condition reported greater discomfort than the women in either alcohol condition but did not differ from women in the control condition, providing additional evidence for the physiological effect of alcohol intoxication on women's awareness of ambiguous risk cues.

In sum, the research examining the role of acute alcohol intoxication on women's risk recognition suggests that women demonstrated lower ability to recognize risk (Davis, 2000; Davis et al., 2009) and reduced risk recognition may mediate the relationship between intoxication and responses (Testa et al., 2006). Additionally, alcohol may lower inhibition and increase likelihood of women responding to the situation in ways that increase risk for experiencing a sexual victimization (Davis et al., 2004; Testa et al., 2000b). Moreover, women's responses to risky situations may be affected by alcohol expectancies (Pumphrey-Gordon & Gross, 2007) or through secondary appraisals such as feeling uncertainty about the situation, concern for the man, and conflict over going along or ending the sexual advances (Stoner et al., 2007).

Individual Risk Factors

Victimization History

Previous research has demonstrated that a history of sexual victimization is a risk factor for future victimization. In fact, once a woman has been sexually-victimized she is at increased risk for future victimization (Gidycz et al., 1993; Himelein, 1995; Koss & Dinero, 1989; Mandoki & Burkhart, 1989; Wyatt, Guthrie, & Notgrass, 1992). One

hypothesis is that women who have experienced previous victimization have difficulty identifying risk in sexually risky situations; however, it is unclear whether poor risk recognition leads to victimization or if risk recognition difficulty arises because of a victimization experience. Several studies have demonstrated that women with a victimization history show deficits in risk recognition (Norris, Nurius, & Graham, 1999; Soler-Baillo et al., 2005; Wilson et al., 1999; Yeater, Treat, Viken, & McFall, 2010). Previous research has used predominantly cross-sectional studies to examine this relationship (See Gidycz et al., 2006 for a review).

Research has also examined the relationship between victimization history and responses to risky situations. In fact, in several studies, women reported they were less likely to use resistance strategies (Corbin et al., 2001; Gidycz, Van Wynsberghe, and Edwards, 2008; Stoner et al., 2007; VanZile-Tamsen, Testa, & Livingston, 2005), demonstrated less response refusal (Yeater & Viken, 2010), suggested an increased likelihood of responding to the situations using less effective responses (Nason & Yeater, accepted pending revisions), were more likely to use more indirect and nonforceful strategies to resist unwanted advances than nonvictimized women (Gidycz et al., 2008; Nurius, Norris, & Dimeff, 1996; VanZile-Tamsen et al., 2005), and reported a concern for the man's feelings and concerns about his perception of the woman and these thoughts reduced the likelihood of assertive responding (Stoner et al., 2007). In addition, research has demonstrated that a history of victimization moderated the relationship between contextual features of the situation and women's response effectiveness (Yeater et al., 2011). Thus, victimization history is an important individual difference factor with

respect to understanding women's risk recognition and responses to sexually risky situations.

Sexual Attitudes

The relationship between sexual attitudes and women's risk recognition and ability to respond to risky situations has recently been examined in the literature (Nason & Yeater, accepted pending revisions; Yeater, Viken, McFall, & Wagner, 2006; Yeater, Viken, Hoyt & Dolan, 2009). Yeater et al. (2006) examined the role of sexual attitudes on risk recognition as well as on response effectiveness. A sample of women were asked to rate risk for a set of dating and social situations as well as to rate the effectiveness of acquiescent, neutral, and refusal response options for decreasing risk of having an unwanted sexual experience. Sexual attitudes were measured using the Sociosexuality Scale (SS; Bailey & Kirk, 2000). The results suggested that women who endorsed more liberal sexual attitudes made lower risk estimates for social and dating vignettes and rated acquiescent response options as more effective while refusal responses were rated as less effective. In a subsequent study, Yeater et al. (2009) asked women to estimate risk for a set of dating and social situations by imagining themselves versus an anonymous woman in the situations. Again, the SS was used to measure sexual attitudes (Sociosexuality Scale, Bailey & Kirk, 2000). Results suggested that women with more liberal sexual attitudes rated the vignettes as less risky than women with more conservative sexual attitudes, regardless of perspective taken.

In a more recent study, Nason and Yeater (accepted pending minor revisions) measured sexual attitudes and videotaped women's verbal responses to a video clip of a male actor making a request of the woman in several low and high risk dating and social

situations. The responses were then rated by experts in the sexual violence research area for their effectiveness in reducing an unwanted sexual experience, defined as one in which the woman would be verbally or physically coerced into having sexual contact of any kind with the man. Nason and Yeater (accepted pending minor revisions) found that liberal sexual attitudes mediated the relationship between victimization history and how effective the women's responses were to the vignette. Specifically, more severe victimization experiences were linked to more liberal sexual attitudes, which, in turn, were related to responses that were rated by experts as less effective in decreasing risk of sexual victimization. In conclusion, sexual attitudes appear to be negatively correlated with lower estimates of risk recognition (Yeater et al., 2009; Yeater et al., 2006) and greater likelihood of providing ineffective responses (Nason & Yeater, accepted pending minor revisions).

The Current Study

Overall, there is strong evidence that a relationship between alcohol use and risk for victimization exists. Alcohol use may affect risk recognition (Davis, 2000; Davis et al., 2009; Testa et al., 2006). There is some evidence it does so by increasing a woman's willingness to engage in behaviors that then may increase her chances of having a victimization experience (Davis et al., 2004; Pumphrey-Gordon & Gross, 2007; Stoner et al., 2007; Testa et al., 2006; Testa et al., 2000b). One predominant hypothesis to explain the effect of alcohol intoxication on women's risk recognition and response choices is alcohol myopia theory. Additionally, both sexual victimization history and sexual attitudes appear to be important predictors of women's perception of and responses to risky situations. To date, few studies have examined how a history of victimization may

affect risk estimates and responses under conditions of alcohol intoxication. Moreover, no studies have investigated whether victimization history and sexual attitudes moderate the relationship between alcohol intoxication and women's perceptions of and responses to risky situations. Thus, the current study investigated, under conditions of alcohol intoxication, whether a history of sexual victimization and sexual attitudes affected women's risk recognition and responses to a set of high-risk dating and social situations. Previous alcohol administration research with women has typically used a balanced placebo design (alcohol, no-alcohol, and expectancy conditions) to differentiate between the pharmacological and expectancy effects of alcohol (Fromme, D'Amico, & Katz, 1999; Fromme, Katz, D'Amico, 1997; Testa et al., 2000b). However, research with women demonstrates that the pharmacological effects of alcohol (and not alcohol expectancy effects) appear to negatively affect women's responses in high risk sexual situations (Abbey et al., 2000; Fromme et al., 1999; MacDonald, Zanna, & Fong, 1996; Stoner et al., 2007; Testa et al., 2006). Second, after a certain BAC, deception fails because the pharmacological effects of the alcohol override the expectancy of being told one is not consuming alcohol (Martin & Sayette, 1993). Third, in real life situations, one drinks alcohol or does not drink alcohol, there is no overt deception related to the beverage choices in natural drinking settings. Thus, using a two group design is considered an acceptable approach for alcohol administration research with women.

Alcohol administration studies have typically used a single vignette that describes a high risk dating scenario and measured response latency (Davis, 2000; Davis et al., 2004; Davis et al., 2009; Pumphrey-Gordon & Gross, 2007; Stoner et al., 2007; Testa et al., 2006; Testa et al., 2000b). Sampling across a variety of domains (stimulus sampling)

provides an opportunity to understand how women estimate risk and respond across common situations in which they may find themselves. Several researchers have called for the use of more than one scenario in alcohol administration studies to more fully explore the breadth and depth of the predictors of sexual assault (Stoner et al., 2007) as well as the use of scenarios that reflect the complexity present in situations that may lead to sexual victimization (Gidycz et al., 2006). Given previous alcohol administration studies have shown effects in a single, high-risk vignette, it may be important to use a sample of vignettes that describe a variety of situations common for college women rather than a single vignette.

Women were assigned randomly to either an alcohol group or a control group using an alcohol administration procedure similar to that used in previous research (Davis et al., 2004; Pumphrey-Gordon & Gross, 2007; Testa et al., 2006). They were then presented with 15 vignettes describing high risk dating and social situations. Women were asked to rate risk in each situation (Yeater & Viken, 2010). They also were asked to rate how likely they were to respond to each situation in an acquiescent, passive, assertive, and aggressive way (see Appendix A), response options that have commonly been used in previous studies (Davis et al., 2004; Stoner et al., 2007). Participants were then asked to complete a packet of questionnaires asking about history of victimization, sexual attitudes and beliefs, and other general demographic information.

Goals of the Study

Hypotheses

Based on the review of the literature, the following hypotheses were generated for this study. Hypothesis 1: Participants in the alcohol condition would have lower risk

ratings, higher acquiescent and passive responding, and lower assertive responding than participants in the control condition. Hypothesis 2: Participants with a more severe victimization history and more liberal sexual attitudes, relative to women with a less severe history and less liberal sexual attitudes, would provide lower risk ratings, higher passive and acquiescent responding, and lower assertive responding. Hypothesis 3: Victimization history would moderate the relationship between alcohol intoxication and women's risk and response ratings. Specifically, women in the alcohol condition with a more severe victimization history would provide lower risk ratings, higher acquiescent and passive responding, and lower assertive responding than women with a less severe victimization history. Hypothesis 4: Sexual attitudes would moderate the relationship between alcohol intoxication and women's risk and response ratings. Specifically, women in the alcohol condition with more liberal sexual attitudes would provide lower risk ratings, higher ratings for acquiescent and passive responses, and lower ratings for assertive responses than women with less liberal sexual attitudes.

Exploratory analyses were conducted to examine both the main and interaction effects of condition, victimization history, and sociosexuality in predicting aggressive response ratings. Previous research has suggested including a broad range of responses to sexually risky situations; however, little is known about aggressive responding by women in these situations. Given the lack of literature on main effects for aggressive response ratings and potential interactions, no specific hypotheses were generated for these analyses.

Design

A mixed factorial design was used in the current study. The between-subjects factors were condition (alcohol, no alcohol) and two continuous factors, severity of victimization history and sociosexuality. A power analysis was conducted to arrive at the number of subjects needed to conduct the study. A conventional power value of 80%, an alpha value of .05, and a medium effect size (d = .5) was used for the analysis. To achieve 80% power, a sample size of 120 participants (60 per group) was needed to detect differences between the groups.

Method

Participants

Two hundred eighty three women were recruited from the psychology research pool and student body at a large southwestern university for screening. Participants scheduled a time to complete the screening packet (Appendix B) with the researcher to determine their eligibility. Inclusion criteria were that the participant had to be (a) between the age of 21 and 29, (b) a moderate drinker (characterized by 3 drinking episodes in the last 30 days with at least one drinking episode in which 3 or more drinks were consumed), (c) sexually active, either currently or in the past (defined as engaging in fondling, vaginal, oral, or anal intercourse with another person), and (d) currently enrolled in undergraduate classes. Exclusion criteria included (a) meeting DSM-IV-TR criteria for past (last 2 years) or current depression, (b) meeting DSM-IV-TR criteria for past or current psychosis, (c) meeting DSM-IV-TR criteria for current alcohol abuse or dependence, (d) a history of head injury resulting in loss of consciousness, (e) currently using medications that warn against consuming alcohol, (f) no reported history of engaging in sexual activity, and (g) a reported history of psychotherapy for Major Depression, Bipolar Disorder, Schizophrenia (or Psychotic disorders) or Alcohol Dependence.

Of those ineligible to participate, 59.4% (n = 76) drank less than the minimum required, 35.2% (n = 45) currently or recently met (i.e. last 2 years) criteria for depression, 12.5% (n = 16) reported current medication use contraindicating alcohol use, 12.5% (n = 16) met criteria for current alcohol abuse or dependence, 3.9% (n = 5) reported no current or previous sexual activity, 2.3% (n = 3) had a history of head injury

resulting in loss of consciousness, and 2.3% (n = 3) were not within the age range for the study.

One hundred fifty five women were eligible and invited to participate in the experimental part of the study. Of these, 122 women completed the experiment. Of the 122 participants, three women who were lesbian were excluded from analysis because the vignettes describe situations that heterosexual or bisexual women might experience when dating or interacting socially with men. An additional four married women were excluded because the vignettes describe situations unmarried women might experience. Finally, two women were excluded because they did not complete the risk rating task. The resulting sample was one hundred thirteen women. Information about women who were eligible but did not participate was not available.

Participants' mean age was 22.47 years (SD = 1.91; range 21-29). The sample was predominantly heterosexual (88.5%) and bisexual (11.5%). The sample was diverse ethnically, with self-reported ethnicities including White (56.6%), Hispanic (29.2%), Asian (3.5%), Native American (2.7%), African American (1.8%) and other (6.2%). Approximately 58.4% of the sample reported their year in college as senior, while a third (33.6%) reported their year in school was junior, 6.2% reported their year as sophomore, 0.9% reported freshman, and 0.9% reported graduate student. The majority of participants reported that they were currently single (76.1%), 21.2% reported living with someone, 1.7% reported they were divorced, and .9% reported being separated.

Measures

Demographics Questionnaire (Appendix C). This self-report questionnaire asked participants for age, marital status, race and ethnic membership, year in college and current residence.

Sexual Experiences Survey (SES) (Appendix D). (Koss & Gidycz, 1985; Koss et al., 1987; Koss & Oros, 1982). The SES is a 10-item self-report questionnaire assessing the frequency and severity of sexual victimization experiences (i.e. unwanted sexual contact, sexual coercion, attempted rape, and rape). This measure uses behaviorally-specific definitions of sexual assault (i.e. Have you given in to sexual intercourse when you didn't want to because you were overwhelmed by a man's continual arguments or pressure?), and asks participants to specify if the event occurred by answering one of two response options (no or yes). Koss and Gidycz (1985) reported that the SES has an internal consistency of $\alpha = .74$, a one-week test-retest reliability of $r = .93$, and a correlation of $r = .73$ with interview responses, indicating that it is a reasonable measure of self-reported sexual victimization. The internal consistency of the SES for this sample was $\alpha = .71$.

Using the common scoring procedure for the SES, participants were categorized based on the most severe experience they reporting experiencing since the age of 14 (Koss & Gidycz, 1985). With respect to frequency of sexual victimization, 38.5% ($n = 43$) of participants reported no history of sexual victimization, 12.8% ($n = 15$) reported unwanted sexual contact, 14.5% ($n = 16$) reported sexual coercion, 13.7% ($n = 16$) reported attempted rape, and 20.5% ($n = 23$) reported rape.

Sociosexuality Scale (SS) (Appendix E). (Bailey & Kirk, 2000). The SS is a 15-item self-report measure of participants' willingness to engage in sexual activity. It consists of items from the Sociosexuality Orientation Inventory (SOI; Simpson & Gangestad, 1991) and items from Eysenck's (1976) study of the genetics of sexual behavior. Higher scores on the SS indicate greater acceptance of permissive sexual beliefs and behaviors. According to Bailey and Kirk (2000), the SS correlated highly with the SOI, and had alpha coefficients of .88 for men and .85 for women. A factor analysis of the SS found only one factor accounted for the shared item variance. For the present study, the usual response format for the first 15 items of the SS was altered from the "yes-no" format to a 4-point Likert rating format (1 = strongly agree, 2 = agree, 3 = disagree, 4 = strongly disagree). This format has been used successfully in previous studies (Yeater et al., 2009; Yeater et al., 2006). A score was calculated for each participant by summing the responses. The summed scores were then centered using the mean of the sample. In the current study, the internal consistency of the SS was .90.

Dating Behavior Survey (DBS) (Appendix F). This 19-item questionnaire was used to assess participants' participation in various dating and social behaviors. Specifically, it asks participants whether they currently were dating or "hooking up" (i.e., engaging in spontaneous sexual activity, including fondling, oral, vaginal, and anal sex); how often they engaged in dates and "hook ups" (e.g., How many dates have you been on in the last month?, In the last 6 months?, In the last year?); their number of current and lifetime sexual partners (e.g., How many different sexual partners have you had in your lifetime? By sexual partners, we mean different persons with whom you have had vaginal, oral, or anal intercourse).

Vignettes

In previous research, Yeater and colleagues developed a 71 item inventory of written vignettes describing problem situations that undergraduate women might face when dating or interacting socially with men (Yeater et al., 2011; Yeater et al., 2006). The vignettes describe a variety of situations, such as a date, party, bar, and school event, as well as various relationships to the man, such as boyfriend, acquaintance, and authority figure. Known risk factors for sexual victimization are also described, such as previous sexual activity, verbal coercion and threats from the man, and social isolation.

To ensure that participants completed their risk and response ratings during the ascending rather than descending limb of their BAC, a subset of vignettes was selected for use in the current study. Vignettes were selected that were rated in previous research as having a high degree of risk for adverse consequences (Yeater et al., 2011). In this research, a separate sample of undergraduate women rated the vignettes on three different dimensions: (a) *commonness* [How common do you think this situation is for college women (1 = not common, 5 = extremely common)?]; (b) *difficulty* [How difficult would it be for you to handle this situation (1 = not difficult, 5 = extremely difficult)?]; and (c) *seriousness* [How serious are the consequences to you for dealing ineffectively with this situation (1 = not serious, 5 = extremely serious)?]. The median was calculated for each of these dimensions, and 15 vignettes falling above the median on all three dimensions were chosen for the risk judgment task.

Procedure

All procedures and materials were reviewed and approved by the university's Human Research Review Committee. All experimental procedures were administered by

a female experimenter. Participants were compensated $5 per hour or one research credit per hour for their participation.

Screening Interview.

Participants were recruited through the Department of Psychology web-based enrollment system and from the general undergraduate student body using flyers describing the study. The in-person screening interview took approximately 10 to 15 minutes. If participants met the eligibility criteria, they were invited to schedule a day and time to participate in the study. Participants who were scheduled for the same day and time were assigned to the same condition. Once a time slot had been filled (2 women per time slot), the time slot was assigned randomly to either the alcohol or no alcohol control condition. All participants were instructed to abstain from (a) eating 3 hours prior to arrival at the study site, (b) drinking alcohol at least 24 hours prior to arrival, and (c) using illegal substances at least 24 hours prior to arrival. They were also instructed to bring a state-issued identification to verify their age as well as the name and telephone number of someone who could pick them up should they be randomized to the alcohol condition. The study was conducted in a lab that had been set up with several video game chairs, a bar, and a television with DVD player.

Experimental Session.

Upon admission to the study, participants read and signed the consent form. A researcher then briefly summarized the information in the consent form and allowed the participant time to ask any questions about the study. Participants then were asked to provide their identification to verify their age. Each participant was given an initial BAC measure (to ensure that their BAC = .00), a weight and height measure, and a pregnancy

test. BAC was measured using an Alco-Sensor III breathalyzer (Intoximeters, Inc., St. Louis, MO). Weight and height were measured using standard scales. Each participant was asked to urinate in a medical grade urine cup to administer the stick urine pregnancy test. The researcher followed instructions for testing urine with stick pregnancy tests to ensure consistency in testing. Pregnancy was measured using Aim Stick Pregnancy Test Strips which detect 20 mIU/ml of hCG. This detection level allows pregnancy to be detected approximately four days prior to menstruation and takes approximately three minutes to obtain results. When two participants were present, one participant waited in a separate room while initial BAC, weight and height measurements, and pregnancy test was completed on the other. Given that conversation between participants could influence their responses to the alcohol or the study task (to be described), a research assistant sat in the room with participants to ensure that they did not converse. Women who participated in the study had an initial BAC of .000, presented ID to verify their age, and tested negative on the pregnancy test.

Beverage Administration.

The alcohol administration procedure used in the current study has been used often in alcohol research (Abbey et al., 2000; Davis, 2000; Davis et al., 2004; Davis et al., 2009; Pumphrey-Gordon & Gross, 2007; Stoner et al., 2007; Testa et al., 2000b; Testa et al., 2006). Participants assigned to the alcohol condition were administered a dose of grain alcohol (vodka 80 proof) that was calculated to increase their BAC to .08 mg/dl, the legal limit in New Mexico. A computer program developed by John J. Curtin, PhD (version 2.1.0, 2001) uses an equation to estimate alcohol to orange juice ratio taking into account weight, height, type of alcohol, length of drinking period, and amount

of alcohol necessary to achieve .08mg/dl BAC. This equation is similar to that used in previous alcohol administration studies (Davis et al., 2004; Ogle & Miller, 2004; Stoner et al., 2007; Testa et al, 2000b). Alcohol was mixed in a ratio of 1 portion alcohol to 3 portions orange juice. For a 21 year old woman approximately 66 inches tall and weighing 130 pounds, the amount of alcohol in two drinks would be approximately 2 and a half standard drinks (~3.75 ounces).

Participants in the control condition were prepared drinks of orange juice equivalent in volume to drinks they would have received in the alcohol condition based on height and weight measurements. All drinks were prepared in front of the participant and served in 12-oz plastic cups. Participants were instructed to consume their drinks in approximately 10 minutes, 5 minutes per drink. All participants consumed their drinks in the expected time frame. After participants consumed their beverages, they waited approximately 15 minutes to allow for absorption. At the conclusion of the absorption period, they were administered an initial breathalyzer test. Participants then waited another 5 minutes if their BAC level had not reached .07 mg/dl or above. A BAC was taken every 2 minutes after the 5 minute BAC until approximately .07mg/dl was met. The experimental procedure began after a BAC of .07 mg/dl was met in the alcohol condition and after approximately 15 to 20 minutes in the control condition, roughly an equivalent time frame to the alcohol condition.

Participants watched “The Lucy Show” while drinks were prepared, consumed, and during the wait period prior to the first task. This show was chosen because it lacked sexually-based content that could affect participants’ risk and response ratings. Additionally, it provided a distraction from possible alcohol related cues in the

environment. Other researchers have chosen to use television programs similar to this in their alcohol studies for related reasons (Testa et al., 2000b). Participants in both conditions also were asked to refrain from talking about alcohol related material during the experiment.

Once the target BAC measure was met, the participant was provided the packet of 15 written vignettes and allowed privacy to complete the measure. All vignettes were written in first person, and participants were instructed to imagine themselves in each situation, "even if you might not normally find yourself in the situation". They then were instructed to read and rate each vignette on a 5-point Likert scale with respect to how risky the situation is in terms of having an unwanted sexual experience (1 = not risky, 2 = slightly risky, 3 = moderately risky, 4 = very risky, 5 = completely risky). An unwanted sexual experience was defined as a sexual experience they will feel bad about, be hurt by, or regret later. This definition was chosen, as opposed to one that included words like assault or coercion, to reduce possible priming of participants to think about stereotypical rape situations. Previous researchers have determined that the use of these words leads participants to think about stereotypical scenarios such as stranger rape (e.g. Hickman & Muehlenhard, 1997; Wilson et al., 1999).

After rating a vignette on risk, participants were asked to rate how likely they were to respond to the situation in the following ways: (a) How likely are you to acquiesce in this situation (e.g., agree to the request, go along with)?; (b) How likely are you to use an excuse or other passive, indirect behavior (e.g. do nothing, change the subject)?; (c) How likely are you to respond in an assertive way (e.g. describe your feelings clearly, and non-aggressively, say you are not interested)?; and (d) How likely

are you to respond in an aggressive way (e.g. swear at him, push him away)?. For each response choice, participants indicated how likely they were to engage in each behavior using a 5-point Likert scale (1 = not at all likely, 2 = somewhat likely, 3 = moderately likely, 4 = highly likely, and 5 = extremely likely). Completion of the task took approximately 20 minutes. After completion of the tasks, participants were allowed to resume watching "The Lucy Show" for approximately 45 minutes in the control condition and for as long as necessary (up to 2 hours) in the alcohol condition until a BAC of .04 was reached. This was done to allow both groups to experience a waiting period prior to completing the remaining questionnaires and provided a similar experience in the experiment. Participants were offered water and snacks during the waiting period. Participants then completed the Sexual Experiences Survey (Appendix C), the Sociosexuality Questionnaire (SS; Appendix D), Demographics Questionnaire (Appendix E), and the Dating Behaviors Survey (Appendix F). A doctoral level psychologist was available during the experiment in case a participant reported distress during the study. No participants reported being distressed as a result of participation.

After completion of the questionnaires, participants were debriefed and compensated for their time. All participants were told that the purpose of the study was to examine how alcohol affects women's risk perception and response choices to a set of items describing dating and social situations that may result in sexual victimization. They were given a debriefing form that included a list of resources such as the Student Health Center, Psychology Department-run Clinic, a local crisis number, and Student Mental Health Services, as well as the name and telephone number of the clinical faculty member overseeing the research. Participants were asked to refrain from discussing the

procedures and hypotheses of the study with other people. Participants were not allowed outside of the study site at any time during the course of the study in order to reduce the possibility of experiencing harm as a result of their intoxication.

Data Analytic Strategy

Correlations first were conducted among the variables of interest. Analysis of variance (ANOVA) then was used to examine the effect of condition, victimization history, and sociosexuality on the five outcome variables (i.e. mean risk rating, mean rating for acquiescent, passive, assertive, and aggressive responses). Multiple regression analyses also were used to measure the strength of association among condition, victimization history, and sociosexuality, as well as the two way interactions of these variables and women's risk ratings and response choices.

Results

Summary Variables

Five scores were calculated for each participant: (a) a mean risk rating, which was computed by summing each participant's risk ratings for each item and dividing by 15 (the total number of items rated in the study); (b) a mean acquiescent response rating; (c) a mean passive response rating; (d) a mean assertive response rating; and (e) a mean aggressive response rating. The mean response ratings were calculated by creating a sum of the each participant's response ratings and dividing the sum by 15 for each of the four response categories (i.e. acquiescent, passive, assertive, and aggressive response rating).

Preliminary Analyses

Women in the alcohol condition did not differ from women in the control condition in age, year in college, race, number of lifetime sexual partners, or severity of sexual victimization. The conditions did differ with respect to marital status; however, with more women in the control condition reporting living with a significant other than women in the alcohol condition ($t = 2.03$, $p = .045$). Breath alcohol concentration readings indicated participants in the alcohol condition achieved a BAC of .070 (.01) prior to beginning the experimental procedure while participants in the control condition had a mean BAC of .000 (t (115) = -82.8, $p < .0001$).

Correlation Analyses

All continuous measures first were examined for normality. All of the variables were normally distributed. The zero-order correlations among the predictors (i.e. demographic variables, condition, victimization history, and sexual attitudes) and dependent variables (i.e. mean risk rating, mean ratings of assertive, aggressive, passive,

and acquiescent responding) are presented in Table 1. Age was negatively associated with mean risk score across the vignettes (r = -.291, p = .002) and negatively associated with passive responding (r = -.323, p = .0001), suggesting older women rated the vignettes as less risky and were less likely to respond passively. Correlational analyses also revealed a significant negative relationship between victimization history and assertive responding *(*r = -.21, p = .026), suggesting that women with a more severe victimization history were less likely to respond assertively than women with a less severe victimization history. Victimization history was also positively correlated with sociosexuality *(*r = .20, p = .034) indicating that women with a more severe history of victimization also reported more liberal sexual attitudes. Sexual attitudes were negatively associated with both risk rating (r = -.314, p = .001) (Figure 1) and passive responding (r = -.26, p = .005), suggesting women who had more liberal sexual attitudes rated the vignettes as less risky and were less likely to respond to the situations passively. Sexual attitudes, in contrast, were positively associated with acquiescence responding (r = .29, p = .002), suggesting women with more liberal sexual attitudes were more likely to respond to the situations in an acquiescent way than women with more conservative sexual attitudes.

Table 1. Intercorrelations between Predictors and Mean Risk and Response Ratings.

Variable	Mean *(SD)*	1	2	3	4	5	6	7	8
1. Age	22.6 (1.99)	-							
2. Cond.	.48 (.50)	-.077	-						
3. SES Cat.	1.44 (1.3)	.193*	-.032	-					
4. SS	32.98 (7.9)	.082	-.071	.200*	-				
5. Risk Rating	3.48 (.69)	-.291**	.037	-.042	-.314**	-			
6. Acquies. Resp.	2.17 (.60)	-.062	.269**	-.009	.293**	.033	-		
7. Pass. Resp.	2.91 (.81)	-.323**	.093	.058	-.261**	.210*	-.027	-	
8. Assert. Resp.	3.25 (.81)	.084	-.049	-.210*	-.108	-.058	-.552**	-.053	-
9. Aggress. Resp.	2.05 (.75)	.045	.170	.053	-.082	.053	-.330**	.048	.512**

Note. R values of .10, .30, and .50 are considered to be, respectively, small, medium, and large effect sizes (Cohen, 1988). *Cond.* = condition coded as 0=*SES Cat.* = Sexual Experiences Survey coded as 0=none, 1=mild, 2=moderate, 3=severe; *SS* = Sociosexuality Scale; *Acquies. Resp.* = acquiescent responding, *Passive Resp.* = passive responding, *Assert. Resp.* = assertive responding, *Aggress. Resp.* = aggressive responding.
* $p < .05$. ** $p < .01$.

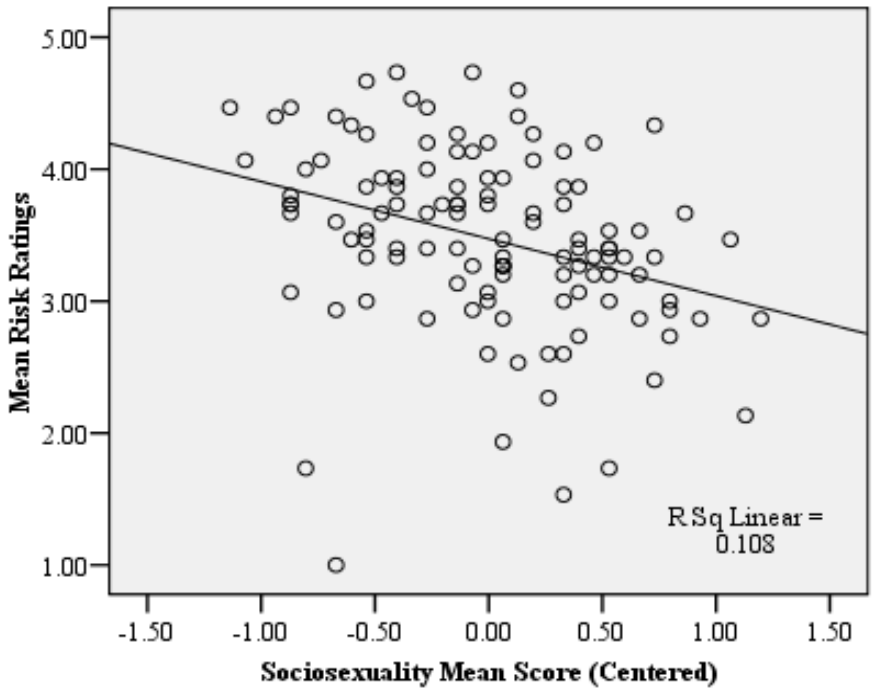

Figure 1. Linear relationship between sociosexuality and risk ratings. The linear $R^2 = .108$

Additionally, correlational analyses revealed significant relationships between participants' risk ratings and passive responding ($r = .210$, $p = .025$), acquiescent responding and assertive responding ($r = -.552$, $p < .0001$), acquiescent and aggressive responding ($r = -.330$, $p < .0001$), and assertive and aggressive responding ($r = .512$, $p < .0001$).

The Effects of Condition on Women's Risk Ratings and Responses

Results of the ANOVA revealed that participants in the alcohol group ($M = 3.49$, $SD = .64$) did not differ from participants in the control group ($M = 3.44$, $SD = .74$) on risk ratings, F (1, 112) = .16, $p = .69$. Additionally, an ANOVA revealed that participants in the alcohol condition ($M = 2.35$, $SD = .61$) provided higher ratings of acquiescent responding than participants in the control condition ($M = 2.03$, $SD = .55$), F

(1, 112) = 8.67, p = .004 (See Figure 2). No group differences were evident for passive responding, F (1, 112) = .96, p = .33, or assertive responding, F (1, 112) = .27, p = .61.

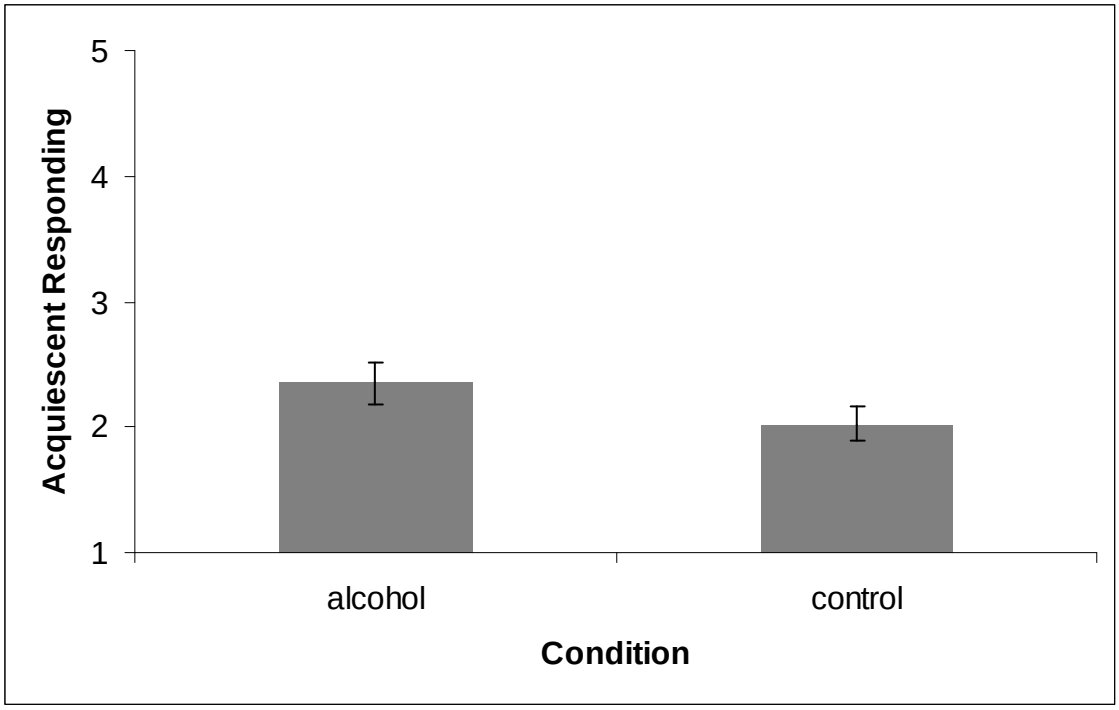

Figure 2. Mean acquiescent responding by condition.
Mean scores between conditions are significantly different (p = .004) and bars represent 95% confidence intervals.

Multiple regression analyses revealed the predictors in the model accounted for a significant, although small, amount of variance in risk rating, F (6, 112) = 2.82, p = .01, R^2 = .14. Only sociosexuality (β = -.41, p = .036) significantly predicted risk rating, suggesting that women with higher sociosexuality rated the vignettes as less risky than women with lower sociosexuality (Table 2). None of the interactions were significant; however, the interaction between condition and severity measure of victimization approached significance (β = -.37, p =.06). In a follow up regression analysis, victimization severity was regressed on risk rating for each of the two conditions. The results indicated that women assigned to the alcohol group provided lower ratings of risk

when they had a more severe history of victimization (β = -.20, *SE* = .07) than women in the alcohol group with a less severe history of victimization (β = .09, *SE* = .07) (*z* = -1.49, *p* > .05). In contrast, women with a more severe victimization history in the control condition reported higher risk ratings than women with a less severe victimization history in the control condition.

Table 2. Multiple Regression Analysis of Condition, Sociosexuality, and SES Category and Interactions on Mean Risk Ratings.

	Risk Ratings		
Variable	*B*	*SE B*	β
Condition	0.24	0.13	0.35
SS[a]	-0.04	0.02	-.41*
SES Category[b]	0.01	0.05	0.02
SS x Condition	0.01	0.01	0.12
SS x SES Category	0.00	0.01	0.11
Condition x SES Category	-0.09	0.05	-0.37
R^2		0.14	
F		2.82*	

Note. [a]SS refers to the Sociosexuality Scale. [b] SES refers to the Sexual Experiences Survey.
**p < .01, *p < .05.

Multiple regression analyses also revealed the predictors in the model accounted for a significant, although small, amount of variance in acquiescent responding, *F* (6, 112) = 4.69, *p* = .0001, R^2 = .21. Condition (β = .26, *p* = .003) was the only independent predictor of acquiescent responding, with women in the alcohol condition, relative to women in the control group, reporting a greater likelihood of responding acquiescently to the situations (See Table 3). The interaction between condition and severity measure of victimization was also a significant predictor of acquiescent responding (β = -.40, *p* = .04). Follow up regression analysis was conducted. The beta test revealed the

relationship between severity of victimization and acquiescent responding differed significantly between the two conditions ($z = -2.04$, $p < .05$). More specifically, women in the control condition increased in their reported acquiescent responding as their severity of victimization increased ($\beta = .20$, $SE = .05$) while women in the alcohol condition showed a decrease in their reported acquiescent responding as severity of victimization increased ($\beta = -.19$, $SE = .06$) (Figure 3).

Table 3. Multiple Regression Analysis of Condition, Sociosexuality, and SES Category and Interactions on Mean Acquiescent Response Ratings.

	Acquiescent Response Ratings		
Variable	*B*	*SE B*	β
Condition	0.38	0.11	.64**
SS[a]	0.02	0.01	0.26
SES Category[b]	-0.03	0.04	-0.07
SS x Condition	0.01	0.01	0.07
SS x SES Category	0.00	0.01	0.07
Condition x SES Category	-0.085	0.04	-0.40*
R^2		0.21	
F		4.69**	

Note. [a]SS refers to the Sociosexuality Scale. [b] SES refers to the Sexual Experiences Survey.

**$p < .01$, *$p < .05$.

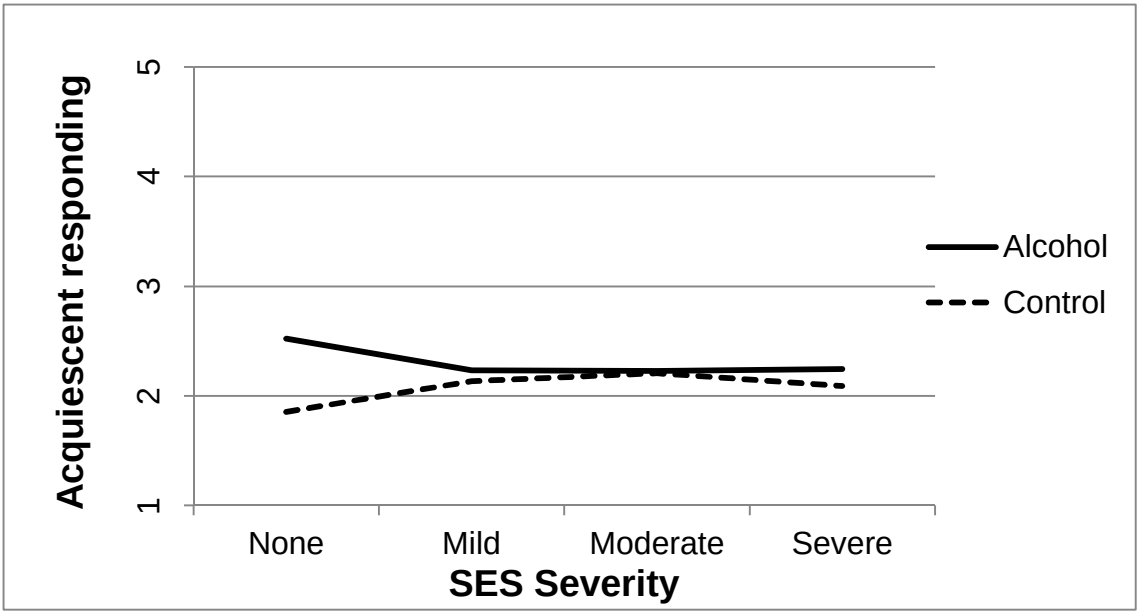

Figure 3. Interaction of victimization history by condition on Acquiescent Responding. Acquiescent responses range from 1 to 5 on a scale of increasing likelihood of acquiescent response.

The model for passive responding was significant, F (6, 112) = 2.77, p = .015, R^2 = .08. Specifically, an interaction between condition and sociosexuality was found (β = -.21, p = .02) (Table 4). Follow up regression analysis indicated a significant difference between the two conditions (z = -2.39, p < .05). Women with higher sociosexuality assigned to the alcohol condition reported lower passive responding (β = -.54, SE = .01) than women with lower sociosexuality in the alcohol condition (Figure 3). Women assigned to the control group showed a very weak negative relationship between sociosexuality and passive responding (β = -.04, SE = .02). The regression model for assertive responding, F (6, 112) = 1.31, p = .26, R^2 = .07, was not significant; thus, the resulting model was not interpreted.

Table 4. Multiple Regression Analysis of Condition, Sociosexuality, and SES Category and Interactions on Passive Response Ratings.

	Passive Response		
Variable	*B*	*SE B*	β
Condition	0.09	0.16	0.11
SS[a]	-0.01	0.02	-0.13
SES Category[b]	0.07	0.06	0.11
SS x Condition	-0.02	0.01	-0.23*
SS x SES Category	-0.01	0.01	-0.18
Condition x SES Category	-0.01	0.06	-0.04
R^2		0.15	
F		3.01**	

Note. [a]SS refers to the Sociosexuality Scale. [b] SES refers to the Sexual Experiences Survey.
**$p < .01$, *$p < .05$.

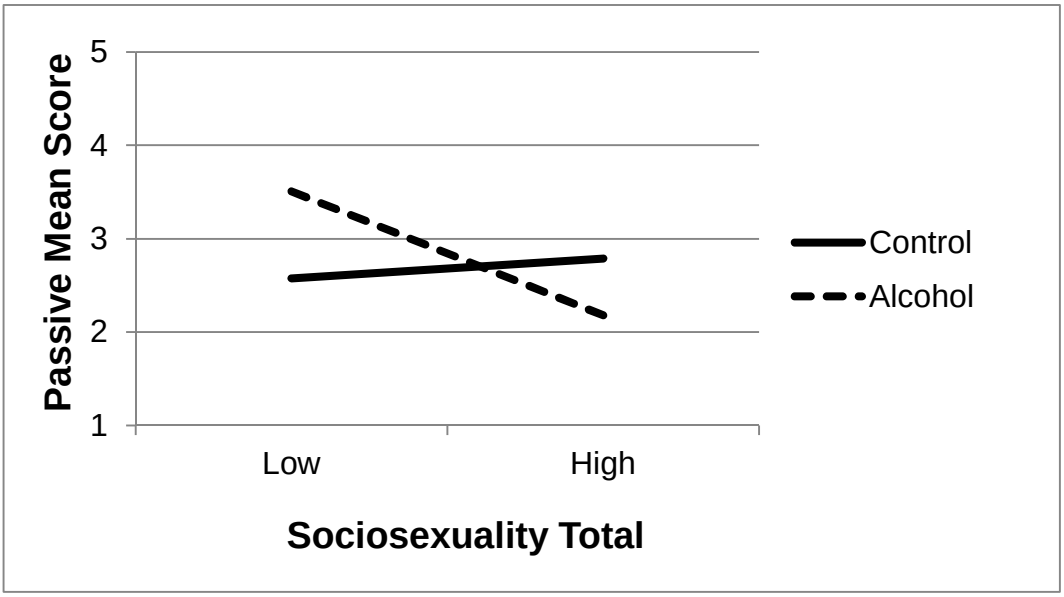

Figure 4. Interaction of sociosexuality by condition on passive responding. Passive responses range from 1 to 5 on a scale of increasing likelihood of passive response.

Exploratory Analyses

The ANOVA revealed that women in the alcohol group (M = 2.16, SD = .78) reported higher aggressive responses compared with women in the control condition (M = 1.92, SD = .67), however, the difference was not significant, F (1, 112) = 3.31, p = .07. The regression model for aggressive responding, F (6, 112) = 1.28, p = .26, R^2 = .07, was not significant; thus it was not interpreted.

Discussion

Relationships between Risk and Responses

Previous studies found that lowered risk perception was negatively related to passive responding. The relationship between risk rating and passive responding found in this study was opposite than previous studies found (Davis et al., 2004; Testa et al., 2006). It suggests that as women's rating of risk increased, their likelihood of choosing passive responding also increased. The relationships between acquiescent and assertive responding and assertive and aggressive responding were in the expected direction and provide evidence that women who provided higher acquiescent responses also endorsed assertive or aggressive responses to a lesser degree, and women who provided higher assertiveness ratings were more likely to also endorse aggressive responses.

Risk Estimates

Findings from the present research revealed some notable associations among sexual attitudes, alcohol intoxication, risk estimates and response choices in a population of college women. With respect to estimates of risk in social situations, the results of this study suggested that, regardless of alcohol intoxication, more liberal sexual attitudes are associated with women's lowered estimates of victimization risk. This finding is consistent with the findings from Yeater et al. (2009) and Yeater et al. (2006) who found that, as sexual attitudes became more liberal, women provided lower estimates of risk. Given that they may be comfortable with a wide range of sexual behaviors, women with more liberal sexual attitudes may find themselves in these situations more often, may not have experienced negative consequences as a result and may generally underestimate the amount of risk present. Thus, their risk for victimization may be higher as a result.

The hypothesis that women in the alcohol condition would provide lower risk estimates was unsupported; however, condition assignment approached significance (t = 1.77, p = .08) suggesting that perhaps, with a larger sample size, it may be possible to detect differences between conditions on risk estimates. This is in direct contrast to the findings by Davis et al. (2009) and Testa et al. (2006), who found acute intoxication was related to reduced awareness of salient risk cues. It should be noted that the stimuli differed between this study and the previous studies such that the situations varied in the degree to which features such as verbal coercion or physical coercion were present. Additionally, in the Testa et al. (2006) study, acute intoxication reduced risk recognition in a situation that included serious aggression involving physical restraint (Testa et al., 2006), a feature included in only one of the vignettes used in this study. It may be that using this sample of vignettes provided participants with less ambiguous risk cues, and, as a consequence, they may have been able to identify risk more readily. Indeed, Davis et al. (2009) found that women under the influence did not differ from sober women in their reported awareness of clear risk cues.

Additionally, the hypothesis that women with a more severe victimization history would estimate lower risk was unsupported. Despite this finding, the interaction between victimization severity and alcohol intoxication approached significance. This suggested women with a more severe history of victimization under the influence of alcohol estimated slightly less risk than sober women with a similar victimization history; however, this was not significant and suggests additional work needs to be done. An interaction between alcohol use and victimization severity suggests that women with a

history of victimization may be less able to identify risk cues and are, thus, more likely to experience revictimization.

Response Choices

With respect to how women reported they would respond to the various situations, several important findings emerged. First, the hypothesis that alcohol intoxication was related to how likely a woman was to respond acquiescently was supported. Women in the alcohol group reported they were more likely to respond in an acquiescent way than women in the control condition suggesting that alcohol may increase the chance that a woman will go along with sexual advances made by a man. This finding is consistent with the findings from Davis et al. (2004), Stoner et al., (2007), and Testa et al. (2006). Generally, both women in the alcohol and control group's responses had mean values of between a 2 and a 3 (M = 2.32 and M=2.03 respectively) indicating that they were somewhat to moderately likely to choose an acquiescent response. Although these ratings were significantly different for the groups, women, regardless of condition, qualitatively reported that they were less likely to respond in an acquiescent way than in an assertive way (M = 3.24 and M=3.26 respectively, moderately to highly likely). One possible explanation for this finding was that this study used a sample of vignettes that were common for college women, difficult to navigate, and had serious consequences if not dealt with effectively. These particular features suggest that the vignettes may have provided clear risk cues making it easier for women to detect risk which may have led women to report increased likelihood of assertive responses than acquiescent responses. This finding is consistent with previous research by Davis et al. (2004) in which a woman was more likely to respond assertively when the threat of

sexual victimization was highest. The implication of this finding suggests that alcohol may lead to an increased likelihood of responding acquiescently and this may be more pronounced when risk cues are ambiguous; however, more research is needed to determine if this is the case.

The hypothesis that more liberal sexual attitudes and a more severe victimization history would be related to more acquiescent responding was not supported. Unlike previous research that has found a relationship between liberal sexual attitudes and less effective responding (Nason & Yeater, accepted pending minor revisions) and women's estimated level of response refusal to risky dating and social situations (Yeater & Viken, 2010), these findings did not emerge in this study. Additionally, the hypothesis that women with a more severe victimization history under acute intoxication would be more likely to report acquiescent responding was unsupported. In fact, the opposite result emerged in this study such that women assigned to the alcohol group with no history of victimization reported they were more likely to acquiesce than women with no victimization history in the control group. Women with some history of victimization reported similar levels of acquiescent responding no matter what group assignment they had. This finding is partially consistent with previous research that has suggested that women consent to low levels of sexual advances when they are intoxicated (Davis et al., 2004); however, victimization history has not previously been included in these prior studies. The direction of the interaction suggests that alcohol intoxication reduces the likelihood of acquiescent responding for women who have a more severe victimization history. It may be the case that women who have been victimized are more aware of

possible risk cues and respond accordingly. However, it may be helpful to understand if this same relationship exists under moderate and high levels of intoxication.

The hypothesis that more severe victimization history, alcohol intoxication, and sexual attitudes would predict passive responding was unsupported. However, an interaction effect was found such that women in the alcohol group with more liberal sexual attitudes reported lower levels of passive responding than intoxicated women with less liberal sexual attitudes. This general trend is compelling for two reasons: one, it suggests that for women with less liberal sexual attitudes, alcohol may increase the chance that they will stay in a potentially risky situation longer, which may indirectly communicate consent for the man's behavior. This may lead to an escalation by the man to obtain sexual activity. This finding is consistent with previous research (Davis et al., 2004) that found women in the alcohol condition were more likely to respond passively, more specifically, they reported they would "do nothing" as a response.

Two, this finding demonstrates that alcohol intoxication may affect women with different levels of attitudes differently. This may be important because women with more liberal sexual attitudes may be choosing acquiescent responses rather than passive responses, which may equally put them at risk for a sexual victimization. In sum, women who are less sexually liberal but intoxicated may be more likely to stay in risky situations longer without providing some clear indication to the man about what should occur in the interaction while women with more liberal sexual attitudes may be choosing to go along with sexual advances made by the man.

The hypothesis that being sober, having a less severe victimization history, and expressing less liberal sexual attitudes would predict assertive responses was not

supported. A number of explanations may exist for this outcome. First, it is possible that using a sample of vignettes that are rated by undergraduate women as particularly salient to their social experience with serious consequences may cue women to respond assertively. More specifically, because these criteria were used to determine the vignette set, it may have been that the vignettes chosen included more obvious risk cues in the details. Previous research has demonstrated that women report a greater likelihood of assertive responses when risk cues are more available and the man in the scenario has made more aggressive advances (Davis et al., 2004). The mean assertive response in this sample was between "moderately likely" and "very likely" (alcohol group M = 3.2; control group M = 3.26). In fact, assertive responses were higher than the other response categories, suggesting that women across the sample were more likely to endorse assertive responding than acquiescent or passive responding. Previous studies have produced similar findings (Davis et al., 2004; Stoner et al., 2007) and have suggested that women believe themselves to be more likely to assertively respond in purely hypothetical situations. It may also have been the result of wording in that the response itself cued women to rate how likely they were to respond assertively, rather than providing examples of assertive responses.

Second, this finding may also have resulted because the level of intoxication was not high enough to affect response choice. Stoner et al. (2007) and Wechsler and Nelson (2001) suggested that levels of intoxication obtained during alcohol administration studies were below that obtained in a typical binge episode for women (4 or more drinks in a setting). Additionally, this finding may be an effect of age. Testa, Hoffman, and Livingston (2010) found that adolescent women entering college were at greater risk for

experiencing a sexual victimization because they were participating in risky drinking behavior and were also likely to engage in risky sexual behavior during their transition to college. This behavior, although developmentally consistent with late adolescents, may be particularly risky because young women are no longer living at home under the guidance of a parent or parents. The lack of controls set by parents and the process of developing one's own controls creates a period of time in which young women are at an increased risk for victimization. This sample was older (M = 22.6) than a typically freshman population, a group known to be at high risk for problem drinking and sexual victimization (Testa et al., 2010), as alcohol administration research cannot enroll participants under the legal drinking age.

An alternate explanation for these findings may be related to the amount of sexual activity engaged in by the participants. This study required that women have some previous sexual experience to be enrolled. This meant that the sample had at least some experience navigating sexual interactions with men. As a result of these sexual experiences, women may have believed they were more likely to respond assertively and less likely to respond passively. It may be the case that younger college women have fewer sexual experiences, which may increase their risk for responding to these types of situations in a more passive, less assertive manner. This style of response may potentially increase their risk for victimization.

Limitations

This study has several limitations. First, the sequence of asking women to rate risk followed by response ratings for each vignette may have primed women to orient to risk which may have led them to choose assertive responses. This could be tested by

inviting women to participate in the study at 2 separate time points. First, under conditions of alcohol, women can be presented with the vignettes and asked to rate risk. At the second time point, women may be asked to provide responses to the vignettes they previously rated. When women finish the study, they may be asked to return the following day to complete a set of questionnaires. This may limit the amount of potential priming that may occur when women rate risk and response during the same experiment.

Additionally, response choices were described using the words "passive", "assertive", "aggressive", and "acquiescent". The use of these words along with examples, rather than prototypical responses for each response type, may have cued participants to endorse responses in specific ways. For instance, it may be the case that women perceive the word "assertive" as positive and have often heard they should respond assertively to sexually risky situations, which potentially led them to report they were more likely to respond that way. In contrast, it may be that women perceive responses such as passive or acquiescent negatively and report they are less likely to respond in such a way, despite what they might actually do. Despite these limitations, this study provides some evidence that women under the influence of alcohol report they are more likely to respond acquiescently and that, when intoxicated, women with more conservative sexual attitudes may report they are more likely to respond passively than women with more liberal sexual attitudes.

Second, using a single intoxication level of .08 as the target BAC is a limitation of alcohol administration studies. More recent work in this area (Davis et al., 2009; Stoner et al., 2007) has suggested that the use of two levels of alcohol intoxication along with a control condition may be helpful in fully understanding the effects of increasing alcohol

intoxication on risk ratings and responses in risky social situations. Specifically, using both .04 and .08 BAC provides the opportunity to look at the increased pharmacological effects of alcohol.

Even with the addition of a second level of alcohol intoxication, women's BAC in an analogue study is well below that which they might obtain during a binge drinking episode. However, this study along with previous research demonstrates that women under artificial conditions provide estimates of risk and response choices that might increase their risk for experiencing a sexual victimization. Additionally, alcohol intoxication has a biphasic effect suggesting that alcohol produces an excitatory response during the first 45 minutes to an hour after first drinking and produces a depressant effect toward the end of the drinking period. BAC was measured at the beginning of the task in this study and it should have been measured at the end of the task to ensure women were on the ascending limb intoxication. Previous research has suggested it may be important to measure BAC at both time points to ensure women are continuously on the ascending limb of the intoxication curve (Davis et al., 2004; Davis et al., 2009; Stoner et al., 2007).

Third, in some of the vignettes used in this study, women were told they had been drinking, whether or not they were in the alcohol condition. Previous research (Stoner et al., 2007) demonstrated that intoxication, rather than expectancies, affected women's resistance strategies to risky situations. In contrast, Davis et al. (2010), Yeater et al. (2011) and Yeater & Viken (2010) found that telling women alcohol was present in the situations affected their responses. Therefore, it may be beneficial to examine alcohol expectancies in several different ways to understand how they might affect risk ratings and responses. One way would be to use only situations where alcohol use is absent

compared with situations that include alcohol use as a feature. Additionally, alcohol expectancies can be estimated by using paper-and-pencil measures as well as by adding an expectancy condition and examining risk ratings and responses of women in high risk sexual situations. Using multiple strategies would help elucidate the potential role of alcohol expectancies in risk for victimization.

Fourth, women who were cohabitating were included in this sample. It may have been that women in these types of relationships experienced difficulty projecting themselves in to the situations validly. This inability may have led to reduced risk ratings and higher assertive responses. It may be important to screen out women in long term cohabitating relationships that may not experience dating and social situations similar to those in the vignettes to better understand the relationship between alcohol, victimization history and risk recognition.

Several limitations exist when using an experimental analogue. This experimental design may be limited in external validity such that the experiment is not similar to real life events and does not generalize well to those events. However, using 15 hypothetical vignettes that describe situational features as well as interactions between men and women provides a wide range of possible situations that may result in sexual victimization.

In alcohol administration research, one is required to screen out high risk individuals when administering alcohol in a laboratory setting. The women in this study, with or without victimization histories, may be considered high functioning individuals. Women with victimization histories that also have psychosocial problems may have been excluded due to stringent screening. Generally, women who typically screen into alcohol

administration studies appear higher functioning and may not be the type of women typically targeted by risk reduction interventions in their college experience as it is generally women who exhibit some problems related to drinking who are recommended to such interventions. It is important to include both groups of women in standard college drinking related educational programming. Because this study identified both lower risk estimates, higher likelihood of responding acquiescently and passively at a lower level of intoxication, it is important to consider how higher levels of intoxication may amplify these effects.

Conclusions and Future Directions

Despite these limitations, this study provides additional evidence that sociosexuality, victimization history, and alcohol are important factors to investigate as they affect risk recognition and response choices in sexually risky dating and social situations. Although a number of limitations exist for this study, several strengths are also apparent. Primarily, it is the first study to look at how victimization history and sexual attitudes moderate the relationship between alcohol intoxication, women's risk judgments and response choices. Additionally, this study utilized a sample of situations in which college women often find themselves, adding to the external validity of this study. And finally, this study suggests that sexual attitudes are important to understand as a potential risk factor for sexual victimization and may be an important target of potential interventions.

Future studies should include the following methodological changes. Studies should use both high and low risk vignettes that include both ambiguous and clear risk cues to examine differences in risk recognition and response choices across a variety of

situations. Response options using actual responses women have given in previous research may be used to test response selection. Likewise, it may be important to examine both women's ability to generate responses under conditions of alcohol and evaluate generated responses for their effectiveness in decreasing risk of victimization. Effectiveness could be estimated based on procedures used in previous research that included qualitative evaluations by researchers with expertise in the area of sexual violence (Nason & Yeater, accepted pending minor revisions; Yeater et al., 2011). Including additional moderators such as secondary cognitive appraisals (i.e. feelings of shame or concern for the man's feelings in these situations and perceived social benefits associated with the potentially risky situation) would be interesting to investigate because understanding both emotional responses and perceived social benefits may explain how women make the decision to either assertively resist or acquiesce to a man's request. Additionally, it may be important to include two levels of alcohol intoxication (BAC of .04 and .08) to better understand how amount of intoxication affects women's responses in sexually risky situations. Along with two levels, measuring BAC prior to initiating the experimental task and immediately after completing the task will ensure each participant is on the ascending limb of the BAC curve. To control for procedure variability, participants in the alcohol group should have a matched participant in the control group with whom they complete the experimental procedure on the same time schedule.

Additionally, using prospective analysis to examine changes in sexual attitudes or victimization status would provide an opportunity to examine temporal relationships among these variables. By measuring potential changes in these variables and including that information as predictors in a future alcohol administration experiment, researchers

may be able to better understand how changes in sexual attitudes or victimization status over the previous 6 month period might predict risk estimates and response choices. By advancing the methodology in alcohol studies, more information can be obtained about these exact relationships and processes.

Finally, it is important to note that, although this study focuses on women and their risk for victimization, ultimately, the responsibility is with the perpetrator. By identifying risk factors that increase the likelihood that a woman will be victimized, it is my hope that prevention efforts can educate women about the effect of alcohol intoxication on risk perception and response choices and help them make more effective choices to reduce their risk for victimization. Much research remains to be done; however, it may be that interventions that focus on assessment of potential risk factors and skill building of effective refusal skills using role plays with a same age male actor and including alcohol in the training setting can best reduce unwanted sexual experiences for women. Practicing assertive responses may assist in developing and broadening women's possible response options. Women may also benefit from understanding the importance of controlling their alcohol use in potentially risky situations. Through education and skill development, women become more empowered to effectively protect themselves from the risk of sexual victimization.

Appendices

Appendix A: Vignettes for Alcohol Administration Study

VIGNETTE #4A

You have recently put on a few pounds because you've been busy and haven't had time to go to the gym. You have had "the blues" because of this and are feeling unattractive and overweight. You're at a bar with your girlfriends and have had several drinks. A guy that you find really attractive but that you don't know buys you a drink. The two of you talk briefly. He begins to touch your arms and shoulders. He tells you that he finds you really beautiful and sexy. He asks you if you want to leave and go back to his place.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #6

You have been feeling really good about yourself lately. You've been doing well in school and have several new, close friendships. You go to a party with friends that you've been looking forward to for some time. You have a few drinks at the party and are having a great time. A guy you're attracted to comes over to talk to you and gives you a lot of attention throughout the evening. He has a reputation for being a "player". At the end of the night, the two of you kiss. He asks you to come back to his room. You say "no" but he keeps asking you and telling you how beautiful you are.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #8

You are at a party with your girlfriends. You notice that your girlfriends who are wearing revealing clothing and making sexual comments to the guys are getting a lot of attention at the party. You also notice that your friends start hooking up with these guys and going off to the bedrooms in the house. A guy that you have been attracted to for some time comes over and starts flirting with you. After awhile, he asks if you want to go to one of the bedrooms to talk.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #9B

A guy that you really liked a lot recently broke up with you. You've been feeling pretty depressed and decide to go to a party with your girlfriends to make yourself feel better. You have had a few drinks at the party and start to feel pretty drunk. You notice a cute guy from one of your classes looking at you from across the room. He motions for you to come over and talk to him. You're curious, so you go. The two of you talk for about an hour and have several drinks together. The party begins to break up and he asks if he can drive you home.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #10A

You go out to dinner with a guy that you've dated a few times. The two of you have kissed and touched on previous dates. You invite him back to your room after the date. The two of you start to kiss, you get caught up in the moment, and before you know it, you both have most of your clothes off. You don't want to have sex with him yet, but you can tell that he really wants to have sex by the types of comments that he is making to you.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #13

All of your close friends are either dating or in a long-term relationship. You haven't had a date in several months and are feeling kind of hopeless about finding someone that you like. A guy that you've had a crush on for some time finally asks you out on a date. When he brings you home, you invite him in to watch TV. He kisses you and you start to touch each other. You think that this feels good, but do not want to go any farther than kissing and touching. He then starts to unbutton your shirt.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #16

You are at a bar with your friends. You see a really cute guy there that you've wanted to date for a while. He comes over to you and strikes up a conversation. The two of you are really hitting it off. After about an hour, your friends say that they want to leave and go to another bar. Your friends drove you to the bar and you have no other transportation. You're really having a good time with this guy and don't want to leave. The guy offers to drive you home later.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #23A

You are at a party with your friends. You have had several drinks and are feeling pretty drunk. A guy who is really popular in your social group starts to flirt with you. He keeps offering you drinks, touching you, and trying to get you to go to a bedroom with him.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #27

You go to a party with friends. You have had several drinks during the evening and are pretty drunk. You go into one of the bedrooms of the house to rest for awhile and sober up before you go home. An attractive guy from the party follows you into the bedroom and tries to kiss you.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #30A

You are out dancing with friends. A guy who is very cute and popular on campus starts flirting with you and dances with you several times during the evening. You like this guy but has heard that he is a "player". However, he's really nice to you during the evening and acts like a gentleman. At the end of the evening, he asks you to come back to his room.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #33A

You go out on a date with a guy that you've liked for several months. You go to dinner and the movies. He makes several sexual comments during dinner that indicate that he really wants to have sex with you. During the movie, he cannot seem to keep his hands off of you. When he takes you home, he asks whether he can come in for a while.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #35B

You have been dating a guy for about a month. You really like him. He's very attractive and lots of women on campus want to date him. You have felt kind of special that he's chosen you rather than someone else. One night, you're making out with him and things start to get pretty hot. You don't want to have sex with him yet, but you can tell he's really into it. The guy says that he's really committed to the relationship, and if you were too, you would be willing to have sex with him.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #39

You are making out with the guy that you're currently dating. You only want to touch him and have him touch you with your clothes on. He tells you he really wants to have sex with you. You say you're not ready. He says that you've gotten him really excited, and he's finding it really hard to calm down. He tells you that if you give him oral sex, he'll feel better.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #41

You are out on a date with a guy that you like. You want to look good on the date, so you wear your sexiest dress. When you arrive home, he parks the car and leans over and starts kissing you. You kiss him back. He starts to rub your thighs and push your dress up. You push his hands away. He responds by saying that the way you're dressed made him think you were looking to have a good time. You say that the way you're dressed doesn't mean that at all. He ignores you and starts to push your dress up again.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

VIGNETTE #55

You go out on a date with a guy that you've had sex with before. When you return home, he asks whether he can come in and stay the night. You agree. When you get into bed with him, he starts kissing you and acting like you're going to have sex with him. You tell him that you're "not in the mood". He comments that you've had sex with him in the past, and that means you should have sex with him now.

PLEASE RATE HOW RISKY THE SITUATION IS IN TERMS OF YOU HAVING AN UNWANTED SEXUAL EXPERIENCE. BY UNWANTED, WE MEAN A SEXUAL EXPERIENCE YOU WILL FEEL BAD ABOUT, BE HURT BY, OR REGRET LATER.

1	2	3	4	5
Not Risky	Slightly Risky	Moderately Risky	Very Risky	Completely Risky

PLEASE RATE HOW LIKELY YOU WOULD BE TO RESPOND TO THE SITUATION IN THE FOLLOWING WAYS.

1. How likely are you to acquiesce? (agree, go along with)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

2. How likely are you to use an excuse or other passive, indirect behavior? (do nothing, change the subject)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

3. How likely are you to respond assertively? (describe your feelings clearly, and non-aggressively, say you are not interested)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

4. How likely are you to respond aggressively? (swear at him, push him away)

1	2	3	4	5
not at all likely	somewhat likely	moderately likely	highly likely	extremely likely

Appendix B: Screening for Alcohol Administration Study

Please answer each of the questions to the best of your ability.

1) Has there ever been a period of time in your life where you have felt any of the following at the same time for a 2-week period? Make sure all were felt in the same 2-week period.
(Please mark with a "Y" for yes and an "N" for no)

Felt depressed or down most of the day nearly every day _____
Lost interest or pleasure in the things you usually enjoy_____

Note: If "No" on both of the above items, skip to Question 2.

Significant change in weight when not dieting_____
Increase or loss of appetite nearly every day_____
Insomnia or hypersomnia nearly every day_____
Feeling highly agitated or very slowed down nearly all day every day_____
Fatigue or loss of energy nearly every day_____
Feelings of worthlessness or excessive guilt nearly every day_____
Diminished ability to think or concentrate or indecisiveness nearly every day_____
Recurrent thoughts of death or thoughts of suicide_____

2) Have you ever had any of the following experiences for a period of 1-month or longer? (Please mark with a "Y" for yes and an "N" for no)

Convinced that people were talking about you or taking special notice of you____
People were going out of their way to give you a difficult time or hurt you_____
You were especially important in some way, or that you had special powers_____
Something was very wrong with you_____
Something outside of yourself was controlling your thoughts or behavior_____
Someone could read your mind or know what you were thinking____
Some of your thoughts were not your own____
Heard things that others couldn't hear, or voices when no one was in the room___
See things that others couldn't see____
Feel strange sensations in your body or under your skin___
Smelled or tasted things that others couldn't____
Had others tell you that you were incoherent or not making sense____
Felt unmotivated or like nothing was ever pleasant___

3) Have you ever received psychiatric treatment or psychotherapy? Y N
For what problem? _____

4) Have you ever been told by a professional that you have a substance abuse or dependence problem? Y N

5) Have you ever had a head injury that resulted in loss of consciousness or hospitalization? Y N

6) Are you currently using any medications that warn you against using alcohol? Examples of possible medications that may interact with alcohol include: Antibiotics, Aspirin, Acetaminophen (Tylenol), Diphenhydramine (Benadryl), Cimetidine (Tagamet), Ranitidine (Zantac), Ibuprofen (Motrin), Naproxen (Aleve), and Codeine. _____. What medications are you currently using? _____

7) Are you currently sexually active? (By sexually active, we mean any type of sexual activity, including fondling, vaginal, oral, or anal intercourse with another person) _____

8) Have you ever been sexually active? (By sexually active, we mean any type of sexual activity, including fondling, vaginal, oral, or anal intercourse with another person) _____

9) How many times in the past 30 days you have had one or more drinks? _____ . Of those _____times, on how many occasions did you have 3 or more drinks?"_____ .

10) In the last 12 months, have you had repeated absences from work or school or poor performances in school or work due to drinking? (Also may include suspensions, expulsions, or household neglect). Y N

If so, how many times has it happened? _____

11) In the last 12 months, have you driven a car or operated a machine while significantly impaired by alcohol? Y N

If so, how many times has it happened? _____

12) In the last 12 months, have you been arrested for disorderly conduct due to alcohol use?

Y N

If so, how many times has it happened? _____

13) In the last 12 months, have you had social or interpersonal problems caused by your use of alcohol? Y N

If so, how many times has it happened? _____

14) Do you need an increased amount of alcohol to achieve intoxication or desired effect?

Y N

15) Do you have diminished effect (you don't have the same effect from 3 beers that you did a couple of months ago) with continued use of the same amount of alcohol?

Y N

16) Have you had any of the following symptoms developing within several hours to a few days after you stop (or reduce amount) heavy and prolonged alcohol use?

1) autonomic hyperactivity (sweating, high pulse rate)	Y	N
2) increased hand tremor	Y	N
3) insomnia	Y	N
4) nausea or vomiting	Y	N
5) transient visual, tactile, or auditory hallucinations or illusions	Y	N
6) psychomotor agitation	Y	N
7) anxiety	Y	N
8) grand mal seizures	Y	N

17) Have you consumed alcohol to relieve or avoid withdrawal symptoms? Y N

18) Have you consumed alcohol in larger amounts or over a longer period than you intended?

Y N

19) Do you spend a great deal of time in activities to obtain alcohol, use alcohol, or recover from the effects of alcohol? Y N

20) Have you given up important social, occupational, or recreational activities because of your alcohol use? Y N

21) Do you continue to use alcohol despite the knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or made worse by alcohol use? Y N

22) Are you currently pregnant? _____

23) Do you have any medical conditions that you are currently receiving care for? Please be specific. _____

For Research Assistant Use

Participant is:

ELIGIBLE INELIGIBLE

Appendix C: Demographics Questionnaire

Subject ID# _____

Date: _____

INSTRUCTIONS: For each of the questions below, either fill in the blank or place an "✓" in the appropriate box.

---

1. Age _____

2. Marital Status

[01] Single
[02] Married
[03] Separated
[04] Divorced
[05] Living Together
[06] Widowed

3. Year in College

[01] Freshman
[02] Sophomore
[03] Junior
[04] Senior
[05] Graduate Special
[06] Graduate Student

4. Race

[01] Asian
[02] African American
[03] Hispanic/Latino
[04] White/Caucasian
[05] Native American
[06] Other_____

5. Where do you live?

[01] House
[02] Apartment
[03] Duplex
[04] Residence hall (dormitory)
[05] Sorority house
[06] Other _____

6. What is your religious affiliation?

[01] Catholic
[02] Protestant
[03] Jewish
[04] Other
[05] None

7. How frequently do you attend religious services?

[01] never (0% of the time)
[02] rarely (about 25% of the time)
[03] occasionally (about 50% of the time)
[04] often (about 75% of the time)
[05] always (100% of the time)

Appendix D: Sexual Experiences Survey (SES)

Subject ID# _____

Date: _____

Please place an "✓"or fill in the blank for each of the following questions. Please read each question carefully. The following questions are ONLY about sexual experiences you may have had **SINCE YOU WERE FOURTEEN YEARS OLD**.

1. Have you ever given in to sex play (fondling, kissing, or petting, but not intercourse) when you didn't want to because you were overwhelmed by a man's continual arguments and pressure? **(Since you were fourteen**)

[01] No **(If no, skip directly to question #2)**
[02] Yes

How many times have you had this experience since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

How many different men has the experience described in question #1 happened with since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

2. Have you ever had sex play (fondling, kissing, or petting, but not intercourse) when you didn't want to because a man used his authority (boss, teacher, camp counselor, supervisor) to make you? **(Since you were fourteen)**

[01] No **(If no, skip directly to question #3)**
[02] Yes

How many times have you had this experience since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

How many different men has the experience described in question #2 happened with since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

3. Have you had sex play (fondling, kissing, or petting, but not intercourse) when you didn't want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.)? **(Since you were fourteen)**

[01] No **(If no, skip directly to question #4)**
[02] Yes

How many times have you had this experience since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

How many different men has the experience described in question #3 happened with since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

***The following questions are about sexual intercourse. By sexual intercourse, we mean penetration of a woman's vagina, no matter how slight, by a man's penis. Ejaculation is not required. Whenever you see the words sexual intercourse, please use this definition.*

---

4. Have you had a man attempt sexual intercourse (get on top of you and insert his penis) when you didn't want to by threatening or using some degree of force (twisting your arm, holding you down, etc.) but intercourse did not occur? **(Since you were fourteen)**

[01] No **(If no, skip directly to question #5)**
[02] Yes

How many times have you had this experience since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

How many different men has the experience described in question #4 happened with since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

5. Have you had a man attempt sexual intercourse (get on top of you and insert his penis) by giving you alcohol or drugs, but intercourse did not occur? **(Since you were fourteen)**

[01] No **(If no, skip directly to question #6)**
[02] Yes

How many times have you had this experience since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

How many different men has the experience described in question #5 happened with since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

6. Have you given in to sexual intercourse when you didn't want to because you were overwhelmed by a man's continual arguments or pressure? **(Since you were fourteen)**

[01] No **(If no, skip directly to question #7)**
[02] Yes

How many times have you had this experience since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

How many different men has the experience described in question #6 happened with since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

7. Have you had sexual intercourse when you didn't want to because a man used his position of authority (boss, teacher, counselor, supervisor)? **(Since you were fourteen)**

[01] No **(If no, skip directly to question #8)**
[02] Yes

How many times have you had this experience since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

How many different men has the experience described in question #7 happened with since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

8. Have you had sexual intercourse when you didn't want to because a man gave you alcohol or drugs? **(Since you were fourteen)**

[01] No **(If no, skip directly to question #9)**
[02] Yes

How many times have you had this experience since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

How many different men has the experience described in question #8 happened with since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

9. Have you had sexual intercourse when you didn't want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.) to make you? **(Since you were fourteen)**

[01] No **(If no, skip directly to question #10)**
[02] Yes

How many times have you had this experience since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

How many different men has the experience described in question #9 happened with since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

10. Have you had sexual acts (anal or oral intercourse or penetration by objects other than the penis) when you didn't want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.)? **(Since you were fourteen)**

[01] No
[02] Yes

How many times have you had this experience since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

How many different men has the experience described in question #10 happened with since you were fourteen years old?

[ ] 1 [ ] 2-4 [ ] 5-7 [ ] 8-10 [ ] 11 or more

Appendix E : Sociosexuality Questionnaire (SS)

Subject ID# _____

Date: _____

INSTRUCTIONS: For each of the statements below, circle the number that best represents your beliefs or opinions. Feel free to be honest when answering. There are no "right" answers. Please make sure to read the scale correctly.

1. It is better not to have sexual relations until you are married.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

2. Virginity is a girl's most valuable possession.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

3. Sex without love (impersonal sex) is highly unsatisfactory.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

4. I believe in taking my pleasures where I can find them.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

5. Absolute faithfulness to one's partner throughout life is nearly as silly as celibacy.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

6. Sometimes sexual feelings overpower me.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

7. Group sex appeals to me.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

8. If I were invited to take part in an orgy, I would accept.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

9. I can imagine myself being comfortable and enjoying “casual” sex with different partners.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

10. I would have to be closely attached to someone (both emotionally and psychologically) before I could feel comfortable and fully enjoy having sex with him or her.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

11. It would be difficult for me to enjoy having sex with someone I did not know very well.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

12. I could enjoy having sex with someone I was attracted to, even if I didn’t feel anything emotionally for him or her.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

13. The thought of an illicit sex affair excited me.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

14. Sex without love I ok.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

15. The thought of a sex orgy is disgusting to me.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

Appendix F: Dating Behaviors Survey (DBS)

Subject ID# _____

Date: _____

INSTRUCTIONS: For each of the questions below, either fill in the blank or place an "✓" in the appropriate box.

1. What is your sexual orientation?

[01] heterosexual
[02] homosexual
[03] bisexual
[04] other

2. Are you currently dating? (**By dating, we mean spending time with one or several people in which there is a romantic interest, but no commitment to dating only that person).**

[01] No **(If no, skip to question #4)**
[02] Yes

3. How many different people are you currently dating? _____

4. Are you currently sexually active? **(By sexually active, we mean any type of sexual activity, including fondling, vaginal, oral, or anal intercourse with another person).**

[01] No **(If no, skip to question #7)**
[02] Yes

5. With how many people are you currently sexually active? _____

6. How many different sexual partners have you had in your lifetime? **(By sexual partners, we mean different persons with whom you have had vaginal, oral, or anal intercourse).**
_____

7. Do you or have you ever practiced safe sex? **(By safe sex, we mean the use of a condom during vaginal, oral, or anal intercourse).**

[01] No **(If no, skip to question #10)**
[02] Yes

8. How frequently do you or have you practiced safe sex when you've had sex? **(By safe sex, we mean the use of a condom during vaginal, oral, or anal intercourse).**

[01] rarely (about 25% of the time)
[02] occasionally (about 50% of the time)
[03] often (about 75% of the time)
[04] always (100% of the time)

9. Do you currently participate in "hooking up" (**By hooking up, we mean engaging in spontaneous sexual activity, involving fondling, vaginal, oral, or anal intercourse with someone that you are not in a serious relationship with or dating).**

[01] No
[02] Yes **(If yes, skip to question #12)**

10. If you do not currently participate in "hooking up", have you done so in the past?

[01] No
[02] Yes

11. How many "hook ups" have you had in the last month? _____
in the last 6 months? _____ in the last year? _____

12. Are you currently in a serious relationship where you are committed to being only with that person?

[01] No **(If no, skip to question #15)**
[02] Yes

13. How long have you been in this relationship? _____

14. How frequently do you go to bars or clubs?

[01] never
[02] less than once every two months
[03] once every two months
[04] once a month
[05] twice a month
[06] three times a month
[07] once a week
[08] twice a week
[09] more than twice a week

15. How frequently do you go to parties?

[01] never
[02] less than once every two months
[03] once every two months
[04] once a month
[05] twice a month
[06] three times a month
[07] once a week
[08] twice a week
[09] more than twice a week

16. How frequently do you drink alcohol when you go out?

[01] never
[02] less than once every two months
[03] once every two months
[04] once a month
[05] twice a month
[06] three times a month
[07] once a week
[08] twice a week
[09] more than twice a week

17. How frequently do you drink alcohol to the point of intoxication when you go out?

[01] never
[02] less than once every two months
[03] once every two months
[04] once a month
[05] twice a month
[06] three times a month
[07] once a week
[08] twice a week
[09] more than twice a week

18. How frequently do you use illicit drugs, such as marijuana, cocaine, ecstasy, etc. when you go out?

[01] never
[02] less than once every two months
[03] once every two months
[04] once a month
[05] twice a month
[06] three times a month
[07] once a week
[08] twice a week
[09] more than twice a week

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