SEXUAL DECISION-MAKING IN COLLEGE WOMEN: THE ROLE OF CONTEXTUAL AND INTERPERSONAL FACTORS

by

PUJA SETH

(Under the Direction of Lily D. McNair)

ABSTRACT

Human immunodeficiency virus is increasingly becoming a significant problem in younger populations. HIV has become an increasing health risk among young adult women, reflecting the necessity to examine factors contributing to both the increase and decrease of HIV-risk behavior. The present study examined the role of relationship type on women's sexual decision-making and HIV-risk behavior. Other contextual variables and interpersonal factors, such as self-efficacy, risk perception, alcohol use, and alcohol expectancies were also examined within the context of these specific relationships. One hundred fifty-five women participated in the study and completed measures assessing variables of interest. The results indicated that condom use self-efficacy, relationship type, alcohol use, and alcohol expectancies all emerged as important predictors of condom negotiation and condom use during various stages of a relationship and various situations. Interestingly, alcohol use and alcohol expectancies emerged as pertinent factors influencing both risky and safe sexual behavior. Given the findings from this study, increase of condom use self-efficacy, education regarding the link between alcohol, alcohol expectancies, and sexual behavior should be incorporated into prevention programs. It is possible that if individuals consistently engage in self-efficacious and safe sexual behavior, then

this behavior is less likely to be “undone” by alcohol use. Finally, it seems that prevention programs should target the dyad and focus on relationship-specific information. Ideally, efforts should implement methods of teaching effective risk reduction skills that promote assertiveness but do not threaten women’s sense of security and intimacy in their relationships.

INDEX WORDS: Condom Use, Relationship, Alcohol, Self-Efficacy, Risk Perception, Alcohol Expectancies

SEXUAL DECISION-MAKING IN COLLEGE WOMEN: THE ROLE OF CONTEXTUAL AND INTERPERSONAL FACTORS

by

PUJA SETH

B.S., College of Charleston, 2000

M.A., The University of North Carolina at Wilmington, 2002

A Dissertation Submitted to the Graduate Faculty of the University of Georgia in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2007

SEXUAL DECISION-MAKING IN COLLEGE WOMEN: THE ROLE OF CONTEXTUAL AND INTERPERSONAL FACTORS

by

PUJA SETH

Major Professor: Lily D. McNair

Committee: Steven Beach
Karen Calhoun

Electric Version Approved:

Maureen Grasso
Dean of the Graduate School
The University of Georgia
May 2007

DEDICATION

I would like to dedicate this dissertation to my parents, Prem and Rupa Seth, who instilled in me the confidence to pursue my dreams and wish for the impossible. I would also like to dedicate this dissertation to my brother, Punit Seth, for being my silent cheerleader throughout this process. I would like to thank them for their constant love, encouragement, and support throughout my educational endeavors because without them, there would be no dissertation.

ACKNOWLEDGEMENTS

I am thankful for all of the support I have received while completing this dissertation. I would like to express my deepest gratitude to my major professor, Dr. Lily McNair, for her guidance, support, patience, and encouragement to pursue my research interests to the fullest. I would like to thank my committee members, Dr. Steven Beach and Dr. Karen Calhoun, for providing their time and expertise to challenge me and to improve my work. I also am indebted to Dr. Joan Jackson for serving as a mentor to me and providing me with support and great advice whenever I needed it.

I also would like to acknowledge all of my friends and colleagues, especially Ms. Chandler Sims, Ms. Heidi Zinzow, and Mr. Dominic Mastroianni, for their humor, wisdom, and support during difficult times. They have helped keep me sane through this process, and I deeply appreciate their friendship.

I am extremely grateful to my research assistants, Brittany Anderson, Betsey Crowe, Nirali Desai, and Laurie Gardiner, for their assistance with data collection and data entry.

I also would like to thank my research advisor from my Master's program, Dr. Nora E. Noel, who played a big role in developing my interests in research and encouraged me to challenge myself and think critically.

Finally, I would like to thank my family to whom this dissertation is dedicated once again for believing in me more than I did in myself at times.

TABLE OF CONTENTS

Page

ACKNOWLEDGEMENTS v

LIST OF TABLES viii

LIST OF FIGURES ix

CHAPTER

1 INTRODUCTION 1

Social Cognitive Theory 4

Risk Perception and Relationship Type 7

Alcohol and Risky Sexual Behavior 13

Present Study 18

2 METHOD 20

Participants 20

Measures 20

Procedure 23

3 RESULTS 26

Descriptive Statistics and Correlational Analyses 26

Relationship Length, Partner Familiarity, and Condom Use 27

Risk Perception, Condom Use Self-Efficacy, and Condom Use 28

Condom Use Self-Efficacy, Alcohol Use, and Condom Use 31

Alcohol Use, Alcohol Expectancies, and Condom Use 32

4 DISCUSSION 49

Overall Condom Use 51

Condom Use Negotiation 52

Condom Removal while Drinking 55

Limitations 57

Implications and Future Research 57

REFERENCES 61

LIST OF TABLES

Page

Table 1: Participant Characteristics. 24

Table 2: Means and standard deviations of key participant characteristics. 25

Table 3: Means and standard deviations for the variables of interest. 35

Table 4: Correlations between variables of interest for dating sexual partners. 36

Table 5: Correlations between variables of interest for casual sexual partners. 37

Table 6: Correlations for sexual practices between dating and casual sexual partners. 38

Table 7: Differences in condom use across relationship type 39

Table 8: Summary of hierarchical regression analysis for predicting whether women reported condom removal while drinking with dating partners. 40

Table 9: Summary of hierarchical regression analysis for predicting whether women were able to convince their casual partners to have sex with a condom. 41

Table 10: Summary of hierarchical regression analysis for predicting whether women reported condom removal while drinking with casual partners. 42

Table 11: Summary of hierarchical regression analysis for predicting whether women were able to convince their casual partners to have sex with a condom. 43

Table 12: Analysis of variance examining the effect of relationship type, alcohol use, and alcohol expectancies on condom use variables. 44

Table 13: Means and standard errors by alcohol groups, alcohol expectancies, and relationship type for negotiation of condom use. 45

Table 14: Means and standard errors by alcohol expectancies and relationship type for frequency of condom use. 47

Table 15: Means and standard errors by alcohol groups and relationship type for women's report of condom removal while drinking. 48

LIST OF FIGURES

Page

Figure 1: Interaction effects of risk perception regarding partners and condom use self-efficacy in predicting whether women reported condom removal while drinking with dating partners (Note: lower numbers indicate higher frequency of condom removal while drinking). 40

Figure 2: Interaction effects of risk perception regarding partners and condom use self-efficacy in predicting women's condom use negotiation among casual partners (Note: lower numbers indicate higher frequency of condom use negotiation).....41

Figure 3: Interaction effects of risk perception regarding partners and condom use self-efficacy in predicting whether women reported condom removal while drinking with casual partners (Note: lower numbers indicate higher frequency of condom removal while drinking). 42

Figure 4: Interaction effects of condom use self-efficacy and alcohol use in predicting women's condom use negotiation among casual partners (Note: lower numbers indicate higher frequency of condom use negotiation).....43

Figure 5: Interaction effects of relationship type, alcohol consumption, and alcohol expectancies on women's condom use negotiation (Note: lower numbers indicate higher frequency of condom use negotiation).....46

Figure 6: Interaction effects of relationship type and alcohol expectancies on women's report of frequency of condom use.....47

Figure 7: Interaction effects of relationship type and alcohol use on women's report of condom removal while drinking (Note: lower numbers indicate higher frequency of condom removal while drinking).....48

CHAPTER 1

INTRODUCTION

Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) are increasingly becoming a significant problem in younger populations. According to the Centers for Disease Control and Prevention (CDC, 2005), in 2004, an estimated 38,730 individuals were diagnosed with AIDS in the United States, and an estimated 40,000 individuals are diagnosed with HIV each year in the United States. Wassherheit (1997) noted that one of the fastest growing groups of HIV/AIDS and other sexually transmitted diseases (STDs) in the United States comprised young adults. Therefore, it is important to gain a better understanding of various factors placing this population at risk and develop prevention programs that target them.

However, despite the increased risk to young adults, it seems that sufficient screening, prevention, and intervention programs are not being implemented across college campuses. For example, a national survey of colleges and universities in the United States found that only 62% of schools provided testing for common STDs, including HIV. Many schools also did not use screening methods for other STDs, such as chlamydia or gonorrhea, which are the most common and curable in a college population. Although 91% of schools provided STD education, only 52% made condoms available on campus (Koumans, Sternberg, Motamed, Kohl, Schillinger, & Markowitz, 2005), suggesting that access to prevention methods should be increased across campuses throughout the United States.

Earlier in the epidemic, a diagnosis of HIV or AIDS was given to relatively few women. However, it has now become an increasing health risk among women, specifically among young

adult women, ages 25-34, and minority women. In 2001, HIV infection was the sixth leading cause of death among women, ages 25-34 (CDC, 2004). In 1985, women accounted for eight percent of diagnosed AIDS cases, but in 2004 they accounted for 27% of all diagnosed AIDS cases. Although infection rates are higher among men than women, at the current rate of HIV infections among women worldwide, rates among women may soon surpass those among men (CDC, 2006a).

Heterosexual contact is the major route of transmission in younger women. Among individuals who are HIV positive, 63% of them between ages 13-19 and 82% between ages 20-24 contracted HIV through heterosexual contact (CDC, 2003). Biologically, women are more vulnerable to contracting STDs due to characteristics of the vaginal area (e.g., warmth and moisture) and due to the lining of the vaginal area, which increases potential exposure to HIV. Also, microscopic tears in the vaginal area that may result from intercourse increase the possibility of transmission through heterosexual contact. As a result, women are twice as likely as men to contract HIV during vaginal intercourse (CDC, 2006b; European Study Group, 1992; Sharts-Hopko, 1997). Despite the increased risk, young adults continue to engage in risky sexual behavior, such as failing to use a condom during intercourse (DiClemente, 2000). According to the CDC (2002), only 38% of young women reported using a condom during their first sexual encounter.

Male condoms are currently the best and most commonly used method for preventing transmission of HIV and other STDs (Stone, Timyan, & Thomas, 1999). As a result, women have less direct control in protecting themselves, and condom use negotiation becomes a crucial skill for women to have. However, in a consensual sexual relationship, women can make the decision not to have sex but other contextual factors may play a role during the sexual-decision

making process (Norris, Masters, & Zawacki, 2004). Regarding acceptability of female condoms, O'Leary (2000) noted that since they are detectable, male partners may object to its use for the same reason they object to the use of male condoms. Additionally, among heterosexual young adults, condoms were often used for pregnancy prevention rather than disease prevention, which suggested a decrease in condom use if another method of contraceptive was used (Critelli & Suire, 1998; de Visser & Smith, 2001; LaBrie, Schiffman, & Earleywine, 2002; Williams et al., 1992). In one study, 48% of college couples reported using condoms inconsistently, and the majority reported that if they never used condoms in their relationship, it would be difficult for them to currently begin engaging in safer sex behavior (Hammer, Fisher, Fitzgerald, & Fisher, 1996).

Given the increasing rates of HIV and AIDS among women, specifically resulting from heterosexual contact, it is pertinent to examine factors contributing to both the increase and decrease of HIV-risk behavior. Many theories have been proposed to evaluate HIV-risk behavior and prevention programs, including the Health Belief Model (Rosenstock, 1974), Theory of Reasoned Action (Fishbein & Ajzen, 1975), Information-Motivation-Behavioral Model (Fisher & Fisher, 1992), AIDS Risk Reduction Model (Catania, Kegeles, & Coates, 1990), and Social Cognitive Theory (Bandura, 1986). Although these theories have been well supported in the literature, one major limitation of these models is they primarily focus on the individual without considering the dyadic nature of sexual relationships influencing women's sexual decision-making and sexual behavior. Although individual and psychological factors are important, they are not sufficient in providing a comprehensive model of HIV-risk behavior in women because they do not always account for important contextual factors (Logan, Cole, & Leukefeld, 2002). To address this limitation, the present study examined the role of self-efficacy, risk perception,

alcohol use, and alcohol expectancies within the context of relationship type in predicting sexual decision-making and HIV-risk behavior, specifically condom use. Such an approach addressed inconsistencies in women's sexual decision-making across various sexual relationships and examined essential factors predicting HIV-risk behavior within those specific relationships.

Social Cognitive Theory

From a social cognitive perspective, Bandura (1990) proposed that self-efficacy was an important factor that should be considered in HIV prevention. Self-efficacy is conceptualized as being domain-specific. For example, although an individual may feel efficacious in certain sexual situations, this may not generalize to condom use self-efficacy (e.g., condom negotiation). According to this model, knowledge and skills relating to safer sex behaviors are essential, but they are not sufficient and do not directly lead to behavioral changes. Individuals may have knowledge regarding HIV transmission and possess condom negotiation skills, but they may continue to engage in risky sexual behavior. Instead, individuals' perception of their ability to engage in a particular behavior often mediates the relationship between knowledge/skills and sexual behavior and influences whether they engage in a particular behavior, amount of effort they apply, and length of time they persevere when facing any challenges in a specific situation (Bandura, 1990). For example, college-aged women with higher levels of condom use self-efficacy initiated condom use negotiation and had numerous strategies to cope with a partner's refusal (Brafford & Beck, 1991).

Levels of self-efficacy vary across individuals, which can be attributed to each person's unique experiences. Factors playing a role in developing self-efficacy included: previous success in performing the behavior, observing others perform the behavior successfully, others affirming that the behavior can be successfully performed, and feelings of relaxation and control (Bandura,

1986). Bandura (1990) posited that college students typically had low levels of condom use self-efficacy, resulting in decreased condom use.

Wulfert and Wan (1993) found a relationship between self-efficacy, condom use expectancies, peer group comparisons, and condom use among college students. More specifically, positive attitudes/expectations regarding condom use were associated with higher levels of self-efficacy and more consistent condom use, whereas negative attitudes/expectations regarding condom use were associated with lower levels of self-efficacy and less consistent condom use. Favorable peer comparisons (e.g., belief that their frequency of condom use was similar to their peers' use) also were associated with higher levels of self-efficacy and more consistent condom use. Interestingly, peer group comparisons were directly related to condom use, which is somewhat inconsistent with social cognitive theory (Wulfert & Wan, 1993). According to social cognitive theory, cognitive variables should influence behavior indirectly by influencing self-efficacy beliefs (Bandura, 1990). This suggests that there are multiple variables influencing condom use.

Although there have been several studies supporting the relationship between perceived self-efficacy and risky sexual behavior (Bryan, Aiken, & West, 1996; Catania et al., 1992; Goldman & Harlow, 1993), other studies have not found a significant relationship (Catania et al., 1992). For example, although self-efficacy was associated with intention to discuss AIDS with previous sexual partners or with a current partner (Basen-Engquist, 1992), other researchers did not find a relationship between self-efficacy and actual discussion of condom use (Yzer, Siero, & Buunk, 2001). In a sample of college students, self-efficacy also was found not to be associated with condom use or intention to use condoms (Basen-Engquist, 1992). In another study, when

accounting for previous condom use, self-efficacy did not emerge as a predictor of current condom use (Yzer et al., 2001).

Maibach & Flora (1993) implemented a one session videotaped intervention with three conditions (information only, information and viewed modeling of condom negotiation, the previous two components plus opportunity to rehearse the skills) and examined changes in levels of self-efficacy and risk behavior after one month. Although self-efficacy increased most among the group who received all components of the intervention, there were no significant differences in risky sexual behavior across the intervention groups. These findings suggest that higher levels of self-efficacy were not sufficient to reduce risky sexual behavior in this sample. Perceived control also emerged as a stronger predictor of condom use intentions than self-efficacy. Specifically, when perceived control was accounted for in a regression model, self-efficacy was not predictive of condom use intentions (Smith & Stasson, 2000).

Self-efficacy is a well-established predictor of sexual behavior and HIV-risk behavior. However, given that some studies have not found a direct relationship between self-efficacy and condom use, it is important to consider other interpersonal and contextual factors to understand varying levels of self-efficacy in specific situations. Although individuals may have positive attitudes toward condoms, an intention to use them, and higher levels of perceived self-efficacy, situational factors may create a challenge in the likelihood of condom use (Logan et al., 2002; Norris et al., 2004). For example, Uddin (1996) suggested that even though women may have high perceived levels of self-efficacy, a committed relationship may be sufficient in providing a sense of security from contracting HIV. As a result, these women may never use condoms or may use them inconsistently. Therefore, in order to have a complete understanding of women's sexual decision-making process, it is important to take into account pre-existing beliefs,

attitudes, and experiences with specific situational factors (Logan et al., 2002; Norris et al., 2004).

Risk Perception and Relationship Type

Previous research has highlighted that a secure relationship can serve as a protective factor against mental and physical health problems (Prager, 1995). However, the positive qualities of a relationship (e.g., trust and security) may lead to negative consequences, such as high risk sexual behavior, placing individuals at risk for HIV (Kline, Kline, & Oken, 1992). Relationship type appears to play a major role in determining condom use (Civic, 2000; Norris, et al., 2004). Often times, condom use is viewed to be incompatible with the characteristics of a stable relationship and may be threatening to the identity of both partners and their relationship (Metts & Fitzpatrick, 1992), which may lead individuals to engage in impression management. This suggests that individuals want to be perceived and evaluated positively, but they also want to be associated with other individuals who share the same positive characteristics or identity (Schlenker, Britt, & Pennington, 1996). When applying impression management to condom use, individuals may believe that initiating condom use indicates they have a promiscuous sexual history, or their partner has a sexually transmitted disease, which is a threat to both partners' identities and to the relationship (Metts & Fitzpatrick, 1992).

Previous research has indicated that individuals in stable relationships often rely on their perceived ability to choose a safe or healthy partner, which is often the most preferred method of practicing safe sexual behavior (Buysse, 1998; Metts & Fitzpatrick, 1992). Therefore, individuals in relationships may rely on the use of implicit personality theory, which proposes that assumptions are made about a partner's HIV-risk based on certain personality attributes. For example, Hammer et al. (1996) found that only 10% of college students were previously tested

for HIV, and over 75% had never asked their partners to be tested for HIV. More recently, Hou and Wisenbaker (2005) found that 21% of college students reported having at least one previous HIV test. However, among those who reported never being tested for HIV, approximately 80% reported being sexually active, and despite being sexually active, only 7.7% reported intentions of being tested during the next six months (Hammer et al., 1996). According to implicit personality theory, despite not being tested for HIV, individuals who are liked, loved, viewed as trustworthy, and possess other favorable traits are viewed as being at lower HIV-risk by college students. On the other hand, individuals whom one met in a bar, were dressed provocatively, were from larger cities, were "anxious for sex," and were older than most college students were perceived as being at higher HIV-risk (Williams et al., 1992). College students are often more likely to rely on these assumptions, rather than objective information, to make decisions about practicing safer sex behavior (Hammer et al., 1996; Williams et al., 1992). In many ways, they are making the assumption that their partner must not have HIV or another sexually transmitted disease to reduce any cognitive dissonance regarding their own risky sexual practices (Gold, Karmiloff Smith, Skinner, & Morton, 1992). However, it is important to note that the majority of women who contract HIV are infected by their primary male partners (Carpenter, Mayer, Stein, Leibman, Fisher, & Flore, 1991; Marmor et al., 1990). Therefore, familiarity with one's partner is not indicative of practicing safe sex, and use of implicit personality theory is potentially very dangerous (Williams et al., 1992).

Condom use may be more likely in a new relationship or with a casual partner than with a regular partner due to a lack of knowledge about a partner's sexual history (Buysse 1998; Critelli & Suire, 1998; Logan et al., 2002; Sheeran, Abraham, & Orbell, 1999). However, many college students often do not inquire about their partner's sexual history because it may imply a lack of

trust in the relationship (Williams et al., 1992). Among college couples who disclose their sexual history, many have the tendency to minimize number of previous partners or general risky sexual behavior (Hammer et al., 1996). Incidentally, one study found that approximately one-half of college students stated they did not disclose their unprotected sexual practices to their current partners. However, disclosure was not significantly associated with increased condom use (Desiderato & Crawford, 1995).

Despite the differences in condom use between new and regular partners, Sheeran et al. (1999) found that condoms were only used 60% of the time with new partners as opposed to 48% of the time with regular partners. Moreover, women have been found to engage in unprotected sex with a regular partner more frequently than men, suggesting that women's perception of risk and decision-making regarding condom negotiation needs to be further understood (Gold et al., 1992).

Moore and Parker-Halford (1999) identified five major categories of factors related to nonuse of condoms among heterosexual adults, the first one being communication difficulties. Women who have been traditionally socialized may not feel comfortable asking their partners to wear condoms, believing that their assertiveness may be misinterpreted as mistrust. Among women in relationships, condom use was found to be significantly higher among those who reported they made decisions about condoms alone or with their partner as opposed to those who reported their partners made decisions (Harvey, Thorburn-Bird, Galavotti, Duncan, & Greenberg, 2002; Soet, Dudley, & Dilorio, 1999). Trust justification, arousal interference, low erotic potential, and practical difficulties (e.g., messiness, hard to put on, break easily), were the second, third, fourth, and fifth categories, respectively. Male participants were more likely to endorse these reasons than women. As a result, this could place women in a risky situation

because their male partners may not agree to wear condoms due to some of these reasons (Moore and Parker-Halford, 1999). Feelings of powerlessness in the relationship have also been suggested as an obstacle to condom use (Gomez & Marin, 1996; Pulerwitz, Gortmaker, & DeJong, 2000). However, the results appear to be mixed, as other studies found that feelings of powerlessness or relationship power were not predictive of condom use (Cabral, Pulley, Artz, Brill, & Macaluso, 1998; Harvey, et al., 2002; Soler, Quadagno, Sly, Riehman, Ebersteine, & Harrison, 2000).

In general, when a woman has gained some familiarity with a man and believes that there is potential for a long-term relationship, she may focus more on maintaining the relationship rather than negotiating condom use. For example, if a woman feels confident that her partner previously engaged in safe sexual practices, she may be less assertive with condom negotiation, whereas, if her partner previously engaged in risky sexual practices, she may be more assertive. However, if a woman desires to maintain the relationship and believes condom use negotiation may jeopardize it, the latter situation becomes more complicated, and a woman may feel conflicted (Rosenthal, Gifford, & Moore, 1998).

The most obvious reason for lack of condom use appears to be lack of familiarity and lack of knowledge about a potential partner and his/her sexual history. As stated previously, condom use is more common with a new partner than with a regular partner. However, according to Sheeran et al. (1999), a "new partner" can be defined in many ways. For example, a new partner may be someone a woman has just met, someone with whom she has had a few dates, or someone who was previously a friend or acquaintance but became a sexual partner. Fromme, D'Amico, and Katz (1999) found 38% of individuals in their sample, 82% of whom were college students, defined a "regular" partner as someone they knew for one month or less. Therefore,

degree and perceptions of familiarity become an important factor to consider even when examining new or casual sexual partners (Logan et al., 2002). Even with new or casual partners, women may often examine the potential for a long-term stable relationship, specifically when there is a high degree of familiarity with their partner. Previous studies have shown that the most common reason women gave for engaging in casual sex or unprotected sex was the potential of a long-term relationship (Regan & Dreyer, 1999; Rosenthal et al., 1998).

Within committed relationships, a common assumption is that condom use is not important or necessary. However, women are more likely to report being monogamous than men (Norris, et al., 2004; Prince & Bernard, 1998). Consistent condom use frequently decreases as the relationship progresses due to low risk perceptions, an increase in trust, and feelings of safety within their relationship. Women may switch to oral contraceptives to signify the beginning of a long-term relationship once they believe they know their partner well. College-aged women often view relationship maintenance as a priority over protecting themselves (Civic, 2000; Corbin & Fromme, 2002; Hammer et al., 1996; Misovich, Fisher, Fisher, 1997). However, individuals in a long-term relationship may be placing themselves at higher risk for contracting HIV. Typically, these individuals engage in higher frequency of sexual activity, which is most often unprotected. Each encounter of unprotected sex increases the likelihood of contracting HIV, unless both partners are certain of their HIV status (Michael, Gagnon, Laumann, & Kolata, 1994). Despite engaging in riskier sexual behavior, many college students believe they are not at risk for contracting HIV because they are in a relationship (Hammer et al., 1996).

Given that perception of monogamy is an important factor in determining whether to use condoms, it is important to differentiate between serial and realistic monogamy. Serial monogamy is characterized by various exclusive sexual relationships, and realistic monogamy is

characterized by serial monogamy with occasional short-term sexual partners between each long-term relationship (Kelly & Kalichman, 1995; Pinkerton & Abramson, 1993). In both cases, individuals often engage in unprotected sexual activity, often with partners who have never been tested for HIV (Catania, Stone, Binson, & Dolcini, 1995; Phllips, 1993). Therefore, it seems that it is difficult to ensure that one is protected from either transmitting or being infected with HIV.

College students who reported that being in a monogamous relationship protects them from HIV were less likely to have the intention to use condoms and actually use condoms than individuals who did not hold that belief (Thompson, Anderson, Freedman, & Swan, 1996). Civic (2000) found that 50% of college students reported condom use in the first month of the relationship, but only 34% endorsed condom use in the most recent month. Forty percent of participants reported decreasing condom use and stated the major reason was because other methods of contraceptives were being used. Moreover, in a study examining college couples, length of relationship significantly predicted whether men were able to convince their female partners to have sex without a condom, even though she wanted to use one as well as general risky sexual behavior. However, length of relationship did not directly predict condom use, suggesting that being in a monogamous relationship in itself may lead to decreased levels of condom use, regardless of the duration of the relationship (Seth & McNair, 2006). Misconceptions about monogamy in the relationship and partners' characteristics may lead women to perceive condom use as unnecessary. Therefore, relationship variables have emerged as an important predictor of condom use. A sense of security and perceptions of being aware of a partner's sexual history are often identified as the most important reason for inconsistent condom use among college students (Civic, 2000; Norris, et al., 2004; Prince & Bernard, 1998). Although

women may possess the skills to negotiate condom use, lowered risk perceptions and maintenance of the relationship often lead to riskier sexual practices.

Alcohol and Risky Sexual Behavior

When examining risky sexual behavior among a college student population, alcohol use is an important contextual factor that should be considered. Alcohol use can interfere with cognitive processing of information, which may often influence sexual decision-making and increase the likelihood of risky sexual behavior due to lowered perceptions of risk (Fromme et al., 1999; Graves, 1995). Heavy drinkers are reported as having more sexual partners than non-heavy drinkers (Graves & Leigh, 1995), and intoxicated young adults have underestimated negative consequences of unprotected sex more than sober individuals (Fromme et al., 1999). Additionally, women who have consumed alcohol were more confident in their abilities to determine someone's level of HIV-risk based on positive attributes than women who did not. For example, intoxicated women were more likely to view someone who was attractive yet engaged in risky sexual behavior as a potential long-term partner and low on HIV-risk than sober women (Monahan, Murphy, & Miller, 1999; Murphy, Monahan, & Miller, 1998). However, while some studies have found a relationship between alcohol use and risky sexual behavior, others have not (Leigh & Stall, 1993; Temple & Leigh, 1992), specifically in women regarding discussion of safe sex practices (Koch, Palmer, Vicary, & Wood, 1999). Therefore, the relationship between alcohol and sexual risk-taking behavior may often be the result of an interaction among many other contextual, attitudinal, and personality factors.

There are two main explanations for why individuals engage in risky behavior when intoxicated. The first one is the disinhibition theory, which states alcohol can lead individuals to become more outgoing and sociable, and they may engage in behavior that they may not have

otherwise (Critchlow, 1986). This theory predicts that regardless of environmental cues, individuals will lose all inhibition and engage in risky behavior when they are intoxicated (MacDonald, MacDonald, Zanna, & Fong, 2000).

The second theory is the alcohol myopia theory, which states that intoxicated individuals are not able to pay attention to all of the cues in the environment, in turn, failing to process all of the available information (Steele & Josephs, 1988). Instead, this theory predicts that while intoxicated, an individual unintentionally pays attention to the most salient and immediate cues (e.g., sexual arousal) rather than other factors, which may appear less important at the time (e.g., protecting oneself from STDs). As a result, the influence of inhibiting cues (i.e., cues that highlight the disadvantages of engaging in risky behavior) can be substantially reduced, and the influence of impelling cues is increased (i.e. cues that highlight the advantages of engaging in risky behavior) (Steele & Josephs, 1988; Steele & Josephs, 1990). Josephs and Steele (1990) introduced the attention-allocation model, which comprises two central points of the alcohol myopia theory. First, individuals are hindered from performing well on tasks or assignments that require attention and processing of important information when intoxicated. Second, alcohol restricts an individual's attention to the most salient or obvious cues in the environment. These two points are the main facets of alcohol myopia, suggesting a lack of attention and disregard of the implicit cues in the environment can result in an inability to understand what is occurring in different situations (Steele & Josephs, 1988). The more intoxicated the individual, the greater the myopia, and there is not much evidence for an alcohol myopia effect under mild intoxication (Steele & Josephs, 1990).

When comparing two recent sexual encounters (consumed alcohol vs. did not consume alcohol), alcohol use did not prevent young adult women from discussing safer sex practices in

either encounter. However, a discussion of safe sex was more likely to occur prior to sexual encounters not involving alcohol than those involving alcohol. Additionally, women in the alcohol encounter were more likely to have sex with a partner they just met than women in the no-alcohol encounter (Testa & Collins, 1997). Therefore, even though some studies have not found a relationship between alcohol and risky sexual behavior, most researchers agree sexual risk-taking generally increases when alcohol is consumed (Abbey, Saenz, & Buck, 2005; MacDonald, Zanna, & Fong, 1996).

When examining potential moderating variables between alcohol use and risky sexual behavior, relationship status has emerged as important. Sexual intimacy and relationship status may serve as impelling cues highlighting the advantages of risky sexual behavior, and sexual safety may serve as an inhibiting cue. This creates a conflicting situation for the woman, where the influence of alcohol may have a significant impact (Norris et al., 2004). High levels of conflict and alcohol use have been associated with lowest reported condom use (Dermen & Cooper, 2002).

Alcohol use has been found to be more common among casual partners or "one-night stands" than among primary dating partners. Typically, young adult women consume alcohol in social settings, such as bars, parties, or dates, where there may be an opportunity to develop new romantic relationships (Mongeau & Johnson, 1995). Therefore, men and women usually consume alcohol together, where alcohol also influences sexual risk-taking behavior in men. Men have been found to have stronger intentions of engaging in unprotected sex when intoxicated, which also influences women's sexual decision-making (MacDonald et al., 1996). Alcohol use is often related to unprotected sex with casual partners but not with primary dating partners, specifically when length of relationship and levels of intimacy increase within the

relationship (Fromme, et al., 1999; Graves, 1995; Misovich et al., 1997; Temple & Leigh, 1992). Corbin and Fromme (2002) found that young adults having sex with a new partner were more likely to consume alcohol and to use a condom than when having sex with a regular partner. When examining most recent sexual encounter with a regular partner, individuals using oral contraceptives were less likely to use a condom. However, alcohol use was not related to likelihood of condom use. In a meta-analysis of 13 studies, Leigh (2002) concluded that alcohol use was related to decreased condom use in first-time sexual intercourse experiences but not during later sexual intercourse experiences. Therefore, previous research suggests that relationship status is an important contextual variable when examining the relationship between alcohol use and risky sexual behavior.

Alcohol use influences individuals not only through direct physiological effects but also indirectly through alcohol expectancies, which are previous beliefs regarding the effects or outcomes of alcohol use. In this case, many behavioral or attitudinal changes may be attributed to individuals' expectations rather than physiological effects alone (Wilson, 1981). Often the sole belief that one has consumed alcohol may lead to sexual disinhbition, increased sexual arousal, and an increase of women's confidence in their abilities to determine someone's level of HIV-risk based on positive attributes (Monahan et al., 1999). Positive alcohol expectancies are often associated with an increase in engaging in sexual behavior and more specifically high-risk sexual behavior (Crowe & George, 1989, Dermen, Cooper, & Agocha, 1998; Leigh, 1990). On the other hand, negative alcohol expectancies are often associated with a decrease in risky behavior.

As stated previously, alcohol intoxication may be related to risky behavior by impeding specific cognitive processes and transforming individuals' perceptions regarding potential negative consequences. When the advantages of engaging in risky sexual behavior outweigh the

disadvantages, young adults are more likely to engage in risky sexual behavior (Fromme, Katz, & D'Amico, 1997; Plant, Plant, Peck, & Setters, 1989). For example, women with alcohol expectancies of enhanced sexuality may perceive the risk as minimal and view unprotected sex as positive and pleasurable (Norris et al., 2004). Young adults with strong sex expectancies reported perceived benefits of engaging in risky sexual behavior, and in turn reported a stronger likelihood of engaging in risky sexual behavior with a new partner (Fromme et al., 1999). It is also possible that alcohol expectancies may mitigate responsibility for engaging in risky sexual behavior, and women may believe their skills are not sufficient, reducing perceived levels of self-efficacy (George & Stoner, 2000).

Alcohol use has been related to decreased condom use for young adults with strong sex-related alcohol expectancies during first sexual intercourse experience with a regular partner and a new partner (Corbin & Fromme, 2002; Dermen & Cooper, 2000). However, alcohol use and alcohol expectancies did not play a role in most recent sexual intercourse experience with a regular partner, suggesting that alcohol use and sex-related alcohol expectancies play an important role during the early stages of a sexual relationship (Corbin & Fromme, 2002). Additionally, disinhibition and sexual risk-taking alcohol expectancies predicted risky sexual behavior with a most recent first sexual partner. When examining the interaction of alcohol use and sexual risk-taking expectancies, alcohol use was related to risky sexual behavior for individuals with stronger expectancies for first intercourse and most recent intercourse (Dermen, Cooper, & Agocha, 1996).

Pharmacological effects and alcohol expectancies are both proposed mechanisms through which alcohol affects sexual behavior. Regardless of the specific mechanisms, drinking generally increases risky sexual behavior (Abbey et al., 2005). Additionally, relationship type is an

important contextual factor and may moderate the relationship between alcohol/alcohol expectancies and risky sexual behavior.

Present Study

The purpose of the present study is to examine the role of relationship type (casual sexual partner versus dating partner) on women's sexual decision-making and HIV-risk behavior, specifically condom use. Other contextual variables and interpersonal factors, such as self-efficacy, risk perception, alcohol use, and alcohol expectancies also will be examined within the context of these specific relationships.

Hypotheses

1) As addressed in the review of the extant literature, relationship status has been well established in the literature as a predictor of high-risk sexual behavior and condom use. Therefore, it was expected that women in dating relationships would report less negotiation of condom use and less consistent condom use, and women would be more likely to negotiate condom use and actually use condoms with casual sexual partners. Also, it was expected relationship length and partner familiarity would be negatively correlated with negotiation of condom use and actual condom use, regardless of relationship type (dating partner versus casual partner).
2) As stated previously, self-efficacy regarding condom use has been well established in the literature but only in certain situations. It was hypothesized that self-efficacy would mediate the relationship between risk perception and condom use with casual sexual partners. However, a significant mediation effect was not expected when examining condom use with dating partners.

3) Alcohol use has been found to interfere with cognitive processes and sexual decision-making, specifically in casual sexual relationships. Therefore, it was expected that alcohol use would mediate the relationship between self-efficacy and condom use with casual sexual partners.
4) It was also hypothesized that condom use would vary based on the interactive effects of alcohol, alcohol expectancies and relationship type. Individuals who were heavy drinkers and had strong alcohol expectancies would be more likely to engage in risky sexual behavior (i.e. less negotiation of condom use and less consistent condom use) in a casual sexual relationship than in a dating relationship.

CHAPTER 2

METHOD

Participants

Power analysis using G*Power (Faul & Erdfelder, 1992) indicated that 148 participants were needed to detect a medium effect size. Additionally, a similar study (Harris, 2006) found that 120 participants were adequate in detecting a medium effect size. Participants were recruited through the Research Participants Pool in the Department of Psychology at the University of Georgia. Inclusion criteria for participation were heterosexual women who: 1) had at least two male sexual partners, 2) engaged in sexual intercourse with both a casual partner and someone with whom they were in a relationship (i.e. dating partner), 3) were never married, and 4) had never attempted to become pregnant. Participants were prescreened to determine their eligibility, and they received course credit for their participation.

A total of 540 women participated in the study, and of those, 155 met criteria. The average age of participants was 19.19 years (*S*= 1.12), ranging from 18 to 23 years. Participant characteristics are displayed in Table 1 and 2.

Measures

Demographics Questionnaire. Participants were asked questions regarding age, sexual orientation, ethnic background, marital status, education level, number of sexual partners, sexual history, and history of sexual abuse/assault.

Condom Use Self-Efficacy Scale (CUSES; Brafford & Beck, 1991). The CUSES is a 28-item measure that assessed an individual's perceptions of their ability to purchase condoms,

correctly use condoms, and negotiate condom use with sexual partners. Responses to each item were rated on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), and higher scores indicated higher levels of condom use self-efficacy. Examples of items include: "I would feel comfortable discussing condom use with a potential sexual partner before we ever engaged in intercourse," and "I feel confident that I would remember to use a condom even after I have been drinking." Reliability analyses indicated strong internal consistency ($\alpha = .91$) and test-retest correlation ($r = .81$).

Sexual Practices Questionnaire (SPQ). Participants were asked to complete this measure twice: once for a partner with whom they were/are in a dating sexual relationship (SPQ-A) and once for a partner with whom they were/are in a casual sexual relationship (SPQ-B). For the purposes of this study, sexual relationship was defined as a relationship in which participants engaged in vaginal and/or anal sex. This measure assessed relationship length and type of casual sexual relationship, which included: (1) friend/acquaintance (only happened once), (2) one night stand (someone you just met that day and no longer have contact), (3) friend "with benefits" (regular sexual relationship), (4) someone with whom you had a couple of dates, but it did not turn into an exclusive relationship, or (5) other. Participants also completed questions regarding type of sexual behavior, condom use history, barriers to condom use, discussion regarding safe sex practices, HIV testing, alcohol consumption prior to or during sex, and other risky sexual practices.

*Risk Perception*s *Questionnaire* (RPQ; Sheer & Cline, 1994). The RPQ was adapted from a larger measure created by Sheer and Cline (1994). The first scale was "Risk Perceptions," a 15-item measure that measured risk associated with specific sexual behavior and HIV transmission. Four domains were measured: Sex with Condoms (e.g., "Vaginal intercourse with

a stranger with a condom"), Multiple Partners (e.g., "Having more than three sexual partners"), Monogamy (e.g., "Having only one steady sexual partner"), and Sex with no Condom (e.g., "Intercourse with an acquaintance with no condom"). Responses to each item were rated on a 6-point Likert scale, ranging from 1 (no risk) to 6 (very risky). Reliability analyses indicated adequate internal consistency for Sex with Condoms ($\alpha = .83$), Multiple Partners ($\alpha = .76$), Monogamy ($\alpha = .66$), and Sex with no Condom ($\alpha = .70$).

The second scale was "Perceptions about Partners," a 14-item measure that assessed participants' willingness to have sex with a partner based on certain characteristics. Two domains were measured: Interpersonal Communication (e.g., "I am willing to have sex with someone whom I trust without using a condom.") and Attractiveness (e.g., "I am willing to have sex with an attractive stranger only if a condom is used."). Responses to each item were rated on a 7-point Likert scale, ranging from 1 (very unwilling) to 7 (very willing). Reliability analyses indicated strong internal consistency for Interpersonal Communication ($\alpha = .94$) and Attractiveness ($\alpha = .89$).

Finally, participants answered eight questions regarding their perceived susceptibility of contracting HIV. Responses to each item were rated on a 7-point Likert scale, ranging from 0 (N/A) to 6 (strongly disagree). An example of an item is "I believe that my risk of contracting HIV is high." For the purposes of this study, a composite risk score was created to assess participants' overall risk perception regarding their partners and themselves.

Daily Drinking Questionnaire (DDQ; Collins, Parks, & Marlatt, 1985). The DDQ measured daily alcohol consumption for a typical week. Participants then reported their average alcohol consumption in a typical week.

Sex-Related Alcohol Expectancy Questionnaire (SRAEQ; Dermen & Cooper, 1994). The SRAEQ is a 13-item measure that assessed participants' beliefs about the effects and outcomes of alcohol. Three domains were measured: Enhancement of Sexual Experience (e.g., "After a few drinks of alcohol, I feel closer to a sexual partner"), Increased Sexual Risk Taking (e.g., "After a few drinks of alcohol, I am less likely to talk with a new sexual partner about whether he has a sexually transmitted disease, like AIDS or gonorrhea"), and Disinhibition of Sexual Behavior ("After a few drinks of alcohol, I am more likely to have sex on a first date."). Responses to each item were rated on a 6-point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree). Reliability analyses indicated adequate internal consistency for Enhancement of Sexual Experience ($\alpha = .83$), Increased Sexual Risk Taking ($\alpha = .70$), and Disinhibition of Sexual Behavior ($\alpha = .79$). However, for the purposes of this study, only participants' composite sex-related alcohol expectancy score was measured instead of their domain-specific scores.

Procedure

Participants were assigned a code number to maintain the anonymity of their responses. They read and signed two copies of the informed consent, one of which was returned to the researcher, and the other which they kept for their records. The consent form was carefully reviewed with the participants, and any questions/concerns were addressed. Participants then completed the aforementioned packet of questionnaires in a group testing environment where they had ample space and time to allow for privacy and accuracy. The Sexual Practices Questionnaire was completed twice by each participant for a dating sexual partner and a casual sexual partner. Once the questionnaires were completed, the participants were debriefed on the purposes of the study.

Table 1

Participant Characteristics

Variable	%	N
Ethnic background		
Caucasian	76.6%	119
African American	16.1%	25
Asian American	3.9%	6
Hispanic or Latina	1.3%	2
Middle Eastern	1.3%	2
Student Classification		
Freshman	49.7%	77
Sophomore	27.7%	43
Junior	16.1%	25
Senior	6.5%	10
Relationship Status		
Single, not dating	21.3%	33
Single and dating	27.1%	42
Steady relationship, sexually exclusive	49.7%	77
Steady relationship, not sexually exclusive	1.3%	2
Steady relationship in which she has not had sex	.6%	1
Ever had an STD?		
Yes	8.4%	13
No	91.0%	141
Ever been tested for HIV?		
Yes	31.6%	49
No	67.7%	105
Using Oral Contraceptives?		
Yes	60.6%	94
No	38.7%	60
Sexually Assaulted or Raped?		
Yes	5.2%	8
No	94.2%	146

Table 2

Means and standard deviations of key participant characteristics

Variable	*M*	*SD*	*Min*	*Max*
Number of total sexual partners	5.80	4.76	2	25
Age of first oral intercourse	16.02	1.40	12.5	19
Age of first vaginal intercourse	16.52	1.46	13	20
Number of sexual partners during the past year	2.55	2.47	0	24
Number of sexual partners currently	.75	.51	0	2

CHAPTER 3

RESULTS

As stated previously, the purpose of the present study was to examine the role of relationship type (casual sexual partner versus dating partner) on women's sexual decision-making and HIV-risk behavior, specifically condom use. Other contextual variables and interpersonal factors, such as self-efficacy, risk perception, alcohol use, and alcohol expectancies also were examined within the context of these specific relationships. Participants who did not meet the aforementioned inclusion criteria were excluded from the study. The present study was a cross-sectional mixed design, where participants were compared to each other across the different measures. The design was considered mixed because there was a comparison of the within-subject variable, the two Sexual Practices Questionnaires completed on a dating sexual partner and a casual sexual partner. The within subjects comparison allowed for a more powerful test of the hypotheses because participants were used as their own controls.

Descriptive Statistics and Correlational Analyses

Table 3 displays the descriptive statistics for the variables of interest. Tables 4, 5, and 6 display the correlation matrices for the variables of interest in this study. As stated previously, participants completed the Sexual Practices Questionnaire twice, once for a dating sexual partner and once for a casual sexual partner. Table 4 displays the correlations between the variables of interest for a dating partner, and Table 5 displays the correlations for a casual partner. Finally, Table 6 depicts the correlations for sexual practices between dating and casual partners. Many of the variables were significantly correlated as expected, justifying further analyses.

Relationship Length, Partner Familiarity, and Condom Use

According to Hypothesis 1, women would report less negotiation of condom use and less condom use with dating sexual partners than with casual sexual partners. Paired sample t-tests were utilized to examine the differences in negotiation of condom use and actual condom use across relationship type. As shown in Table 7, the results indicated that women were less likely to discuss condom use (t (153)= -3.60, p< .001) and use condoms (t (150)= -4.15, p< .001) during vaginal/anal sex with dating partners than with casual partners. However, there was no significant difference in negotiation of condom use between dating partners and casual partners, t (154)= -.56, p= .58. Although not specifically hypothesized, it is noteworthy that women were less likely to use condoms with dating partners than with casual partners during the last/most recent month of their relationship, t (123)= -5.26, p< .001. However, there was no significant difference between dating and casual partners during the first month of the relationship, t (150)= -1.89, p= .06).

According to Hypothesis 1, relationship length and partner familiarity would be negatively correlated with negotiation of condom use and condom use, regardless of relationship type. Pearson's correlational analyses were utilized to examine the relationship between relationship length and partner familiarity with negotiation of condom use and actual condom use across both dating and casual partners. Contrary to predictions, a significant correlation was not found between relationship length and negotiation of condom use (dating: r= -.05, p= .55; casual: r= .05, p= .60) and condom use (dating: r= .02, p= .81; casual: r= -05, p= .59) for both dating and casual partners. It is noteworthy that relationship length was significantly correlated with whether women were convinced to have sex with a condom by their casual partners, r= .21, p< .05, suggesting that as relationship length increased, women were more likely to be convinced

by their male partners to have sex with a condom. A significant correlation was not found between partner familiarity and negotiation of condom use (dating: r= -.08, p= .33; casual: r= -.02, p= .77) for both casual and dating partners. A significant correlation also was not found between partner familiarity and condom use (r= -.02, p= .80) for casual partners, but a significant correlation was found for dating partners (r= .16, p< .05). Contrary to predictions, it seems that the longer women knew their dating partners before having sex with them, the more likely they were to use condoms with them.

Risk Perception, Condom Use Self-Efficacy, and Condom Use

According to Hypothesis 2, condom use self-efficacy would mediate the relationship between risk perception and condom use with casual partners. However, a significant mediation effect was not expected when examining condom use with dating partners. Two separate mediation models were conducted using hierarchical regression analyses, one for dating partners, and the other for casual partners. The proposed mediation models were analyzed using procedures outlined by Baron and Kenny (1986). The following regression equations were computed: 1) condom use was regressed on risk perception, 2) condom use self-efficacy was regressed on risk perception, and 3) condom use was regressed on both condom use self-efficacy and risk perception.

Dating Partners

The results indicated that women's perception of their own risk predicted condom use with dating partners, β= -.16, p< .05, supporting step 1 of the proposed mediation model. However, women's perception of their own risk did not predict condom use self-efficacy, β= .01, p= .90, and women's perception of their partners' risk also did not predict condom use self-

efficacy, β= .11, p= .15. Since step 2 of the mediation model was not significant, this precluded further analyses and support for the mediation model, which partially supported Hypothesis 2.

Casual Partners

The results indicated that women's perception of their partners' risk predicted condom use with casual partners, β= .18, p< .05, supporting step 1 of the proposed mediation model. However, as stated above, women's perception of their own risk did not predict condom use self-efficacy, β= .01, p= .90, and women's perception of their partners' risk also did not predict condom use self-efficacy, β= .11, p= .15. Since step 2 of the mediation model was not significant, this precluded further analyses and support for the mediation model, which did not support Hypothesis 2.

Follow-up Moderation Analyses

Since the proposed mediation models were not found to be statistically significant, the moderating effects of condom use self-efficacy on the relationship between risk perception and condom use and negotiation of condom use were evaluated for both dating and casual partners. The moderation effects were analyzed utilizing procedures outlined by Aiken and West (1991). Since the interaction terms tend to be highly multicollinear with the main effect terms of which they are composed, the predictor and moderating variables were centered (i.e., scores were subtracted from the mean) to reduce multicollinearity effects. The interaction terms were then created from the centered variables. The predictor variables (risk perception and condom use self-efficacy) were entered in the first step, and the interaction term was entered in the second step.

Dating Partners. As shown in Table 8, a significant moderation effect between women's perception of their partners' risk and condom use self-efficacy was found in predicting whether

women reported having sex with a condom but finishing without one due to alcohol use (i.e., condom removal while drinking), $\beta = .18$, $p < .05$. Condom use self-efficacy also significantly predicted the criterion variable ($\beta = .17$, $p < .05$) but perception of partners' risk did not ($\beta = -.06$, $p = .47$). When examining the interaction further, an evaluation of the simple slopes revealed that the slope for low levels of condom use self-efficacy was significant ($t = -1.95$, $p = .05$), while the slope for high levels of condom use self-efficacy was not, $t = .98$, $p = .33$. Therefore, as levels of condom use self-efficacy decreased and risk perception increased, women's likelihood of removing a condom while drinking increased. The interaction is displayed in Figure 1.

Casual Partners. As shown in Table 9, a significant moderation effect between women's perception of their partners' risk and condom use self-efficacy was found in predicting whether women were able to convince their partners to have sex with a condom, $\beta = .16$, $p = .05$. However, perception of partners' risk ($\beta = .06$, $p = .49$) and condom use self-efficacy ($\beta = -.07$, $p = .42$) did not significantly predict the criterion variable. When further examining the interaction, an evaluation of the simple slopes revealed that the slope for high levels of condom use self-efficacy approached significance ($t = 1.92$, $p < .06$), while the slope for low levels of condom use self-efficacy was not significant, $t = -.80$, $p = .43$. Even though the evaluation of simple slopes for high levels of condom use self-efficacy only approached significance, interpretation seemed warranted given that the interaction was significant and indicated that the simple slopes were significantly different from each other. It seemed that in casual relationships, as levels of condom use self-efficacy increased and risk perception increased, women's likelihood of negotiating condom use decreased. The interaction is displayed in Figure 2.

As shown in Table 10, a significant moderation effect between women's perception of their partners' risk and condom use self-efficacy was found in predicting whether women

reported condom removal while drinking, $\beta = .16$, $p < .05$. Condom use self-efficacy significantly predicted the criterion variable ($\beta = .36$, $p < .001$) but perception of partners' risk did not ($\beta = .01$, $p = .95$). Evaluation of the simple slopes revealed that the slopes for both high levels ($t = 1.48$, $p = .14$) and low levels of condom use self-efficacy were not significant, $t = -1.25$, $p = .21$. Given that simple slopes were only examined at two values of condom use self-efficacy, it is possible that when examining slopes at other values, significance may be found. However, a significant interaction indicates that the two slopes (i.e., low and high levels of condom use self-efficacy) were significantly different from each other. When examining the interaction further, it seemed that as women's risk perception regarding their partners increased, women's likelihood of condom removal while drinking increased at lower levels of condom use self-efficacy but decreased at higher levels of condom use self-efficacy. However, it is not clear whether these two values are significantly different from each other. The interaction is displayed in Figure 3.

Condom Use Self-Efficacy, Alcohol Use, and Condom Use

According to Hypothesis 3, alcohol use would mediate the relationship between condom use self-efficacy and condom use with casual sexual partners. Hierarchical regression analyses were conducted to examine this mediation model. The proposed model was analyzed using procedures outlined by Baron and Kenny (1986). The following regression equations were computed: 1) condom use was regressed on condom use self-efficacy, 2) alcohol use was regressed on condom use self-efficacy, and 3) condom use was regressed on both alcohol use and condom use self-efficacy.

The results indicated that condom use self-efficacy predicted condom use with casual partners ($\beta = .33$, $p < .001$), and alcohol use ($\beta = -.18$, $p < .05$), supporting steps 1 and 2 of the proposed mediation model. However, when both alcohol use and condom use self-efficacy were

entered into the model to predict condom use, a significant effect of condom use self-efficacy was found (β= .29, p< .001). In order to find mediation, this effect should not have been significant. Therefore, Hypothesis 3 was not supported.

Follow-up Moderation Analyses

Since the proposed mediation model was not found to be statistically significant, the moderating effects of alcohol use on the relationship between condom use self-efficacy and condom use and negotiation of condom use were evaluated for casual partners. The moderation effects were again analyzed utilizing procedures outlined by Aiken and West (1991). The predictor variables (condom use self-efficacy and alcohol use) were entered in the first step, and the interaction term was entered in the second step.

As shown in Table 11, a significant moderation effect between condom use self-efficacy and alcohol use was found in predicting whether women reported being able to convince their partners to have sex with a condom, β= -.25, p< .01. However, condom use self-efficacy (β= -.04, p= .62) and alcohol use (β= -.02, p= .80) did not predict the criterion variable. When examining the interaction further, an evaluation of the simple slopes revealed that the slope for high levels of alcohol use was significant (t= -2.92, p< .01), while the slope for low levels of alcohol use approached significance, t= 1.83, p< .07. Therefore, it seemed that in casual relationships, as levels of alcohol use increased and levels of condom use self-efficacy increased, women's likelihood of negotiating condom use increased. Additionally, it seemed that as levels of alcohol use decreased and levels of condom use self-efficacy increased, women's likelihood of negotiation of condom use decreased. However, as stated above, the slope for low levels of alcohol use was only marginally significant. The interaction is displayed in Figure 4.

Alcohol Use, Alcohol Expectancies, and Condom Use

According to Hypothesis 4, condom use would vary based on the interactive effects of alcohol, alcohol expectancies and relationship type. It was expected that individuals who consumed large amounts of alcohol and had strong alcohol expectancies would be more likely to engage in risky sexual behavior (i.e. less negotiation of condom use and less consistent condom use) in a casual sexual relationship than in a dating relationship. Mixed design analyses of variance (ANOVAs) were conducted. The between subjects factors were alcohol consumption (heavy or non-heavy drinkers) and alcohol expectancies (strong or weak). The alcohol consumption categories were created using the Daily Drinking Questionnaire (Collins, Parks, & Marlatt, 1985), and the alcohol expectancies categories were created using the median-split technique. The within subjects factor was relationship type (dating sexual partner and casual sexual partner), and the dependent variables were participants' ability to negotiate condom use and condom use.

As shown in Table 12, a significant interaction effect of relationship type, alcohol use, and alcohol expectancies on condom use negotiation was found, F (1, 148)= 5.80, $p< .05$, $\eta^2=$ .04. The means and standard errors are displayed in Table 13. When further examining the significant interaction, it seemed that heavy drinkers in casual relationships with weak alcohol expectancies were more likely to negotiate condom use than non-heavy and heavy drinkers in dating relationships with strong alcohol expectancies. Additionally, it seemed that heavy drinkers in casual relationships with strong alcohol expectancies were less likely to negotiate condom use than non-heavy drinkers in dating relationships with weak alcohol expectancies (see Figure 5).

As shown in Table 12, significant main effects of relationship type (F (1, 144)= 9.15, $p<$ .01, $\eta^2= .06$) and alcohol expectancies (F (1, 144)= 4.30, $p< .05$, $\eta^2= .03$) on frequency of

condom use were found. These results indicated that women were less likely to use condoms with dating partner than with casual partners, and women with strong alcohol expectancies also were less likely to use condoms than women with weak alcohol expectancies. A significant interaction effect of relationship type, alcohol use, and alcohol expectancies on frequency of condom use was not found, F (1, 144)= 2.11, p=.15. However, a significant interaction effect of relationship type and alcohol expectancies on frequency of condom use was found, F (1, 144)= 3.90, p< .05, η^2= .03. The means and standard errors are displayed in Table 14. When further examining the significant interaction, it seemed that women in casual relationships with weak alcohol expectancies were more likely to use condoms than women in dating relationships with strong alcohol expectancies (see Figure 6).

As shown in Table 12, significant main effects of alcohol use (F (1, 146)= 6.48, p=.01, η^2= .04) and alcohol expectancies (F (1, 146)= 14.89, p< .001, η^2= .09) on women's report of condom removal while drinking were also found. These results indicated that non-heavy female drinkers were less likely to engage in this behavior than heavy drinkers, and women with weak alcohol expectancies also were less likely to engage in this behavior than women with strong alcohol expectancies. A significant interaction effect of relationship type, alcohol use, and alcohol expectancies on women's report of condom removal while drinking was not found, F (1, 146)= .004, p= .95. However, a significant interaction effect of relationship type and alcohol use was found, F (1, 146)= 5.20, p< .05, η^2= .03. The means and standard errors are displayed in Table 15. When further examining the interaction, it seemed among dating partners, heavy drinkers were more likely to remove a condom while drinking than non-heavy drinkers, but there were no significant differences between heavy and non-heavy drinkers among casual partners.

Additionally, heavy drinkers in dating relationships were more likely to remove a condom while drinking than non-heavy drinkers in casual relationships (see Figure 7).

Table 3

Means and standard deviations for the variables of interest.

Variable	*M*	*SD*	*Min*	*Max*
Condom use self-efficacy	70.95	13.32	24	112
Condom Negotiation (d)*	1.69	1.68	0	6
Frequency of condom use (d)	3.14	1.44	1	5
Relationship maintenance when considering condom use (d)*	5.17	2.02	1	7
Consumed alcohol before sex (d)	2.06	.84	1	5
Sex without a condom-alcohol (d)*	5.74	1.75	1	7
Began sex with a condom/finished without one due to alcohol (d)*	5.90	1.80	1	7
Condom Negotiation (c)*	1.79	2.08	0	6
Frequency of condom use (c)	3.72	1.63	1	5
Relationship maintenance when considering condom use (c)*	5.08	1.87	1	7
Consumed alcohol before sex (c)	2.76	1.83	1	5
Sex without a condom-alcohol (c)*	5.46	2.19	1	7
Began sex with a condom/finished without one due to alcohol (c)*	6.03	1.69	1	7
Risk perception-partners	48.39	7.94	26	68
Risk perception-own	19.35	8.97	5	46
Alcohol use	8.31	7.56	0	33
Overall alcohol expectancies	41.40	14.73	13	76

*Lower numbers indicate greater frequency of engaging in the particular behavior (d=dating partner and c= casual partner).

Table 4

Correlations between variables of interest for dating sexual partners.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Self-efficacy	---												
2. Risk perception-partners	.12	---											
3. Risk perception-own	.01	-.05	---										
4. Alcohol Use	-.18*	-.27***	.14	---									
5. Alcohol expectancies	-.35***	-.10	-.03	.43***	---								
6. Total # of sex partners	.03	-.15*	.23**	.29***	.21**	---							
7. Age of first intercourse	-.14	.08	-.03	.06	.13	-.26***	---						
8. Condom use-1st month	.36***	.02	-.14	-.03	-.15	-.15	.03	---					
9. " " last/most recent month	.22**	.06	-.15	.08	.01	-.13	.05	.50***	---				
10. Condom negotiation	-.18*	-.06	.07	.04	.09	-.09	.10	-.09	-.08	---			
11. Frequency of condom use	.26***	.12	-.16*	-.03	-.02	-.18*	.05	.59***	.80***	-.10	---		
12. Sex without a condom (alcohol)	.34***	.13	-.09	-.39***	-.40***	-.14	-.28***	.20**	.12	-.20**	.18*	---	
13. Condom removal while drinking	.14	-.03	-.04	-.36***	-.40***	-.21**	-.30***	.16*	.10	-.09	.18*	.62***	---

*p≤ .05, **p≤ .01, ***p≤ .001

(Note: Condom negotiation, sex without a condom (alcohol), and condom removal while drinking are reverse scored. Therefore, lower numbers indicate more negotiation and safer sexual behavior).

Table 5

Correlations between variables of interest for casual sexual partners.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Self-efficacy	---												
2. Risk perception-partners	.12	---											
3. Risk perception-own	.01	-.05	---										
4. Alcohol Use	-.18*	-.27***	.14	---									
5. Alcohol expectancies	-.35***	-.10	-.03	.43***	---								
6. Total # of sex partners	.03	-.15*	.23**	.29***	.21**	---							
7. Age of first intercourse	-.14	.08	-.03	.06	.13	-.26***	---						
8. Condom use-1st month	.37***	.18*	-.08	-.22**	-.21**	-.28***	-.04	---					
9. " " last/most recent month	.36***	.13	-.05	-.30***	-.23**	-.34***	-.01	.86***	---				
10. Condom negotiation	-.08	.06	.05	-.02	.01	-.15*	.12	.13	.08	---			
11. Frequency of condom use	.33***	.14	-.08	.27***	-.20**	-.32***	.02	.90***	.96***	.08	---		
12. Sex without a condom (alcohol)	.35***	.09	-.06	-.38***	-.43***	-.24**	-.18*	.49***	.52***	-.01	.53***	---	
13. Condom removal while drinking	.34***	.06	-.02	-.27***	-.38***	-.16*	-.28***	.38***	.39***	-.12	.38***	-.35***	---

*p≤ .05, **p≤ .01, ***p≤ .001

(Note: Condom negotiation, sex without a condom (alcohol), and condom removal while drinking are reverse scored. Therefore, lower numbers indicate more negotiation and safer sexual behavior).

Table 6

Correlations for sexual practices between dating and casual sexual partners.

Variable	1	2	3	4	5	6	7	8	9	Casual Partners
Dating Partners										
1. Condom Use 1st month	.41***	.38***	-.01	.14	.39***	.01	.08	.18*	.19*	.
2. " " last/most recent month	.21**	.28**	-.09	-.05	.26**	.05	.10	.12	.24**	
3. Condom negotiation	-.07	-.14	.36***	.17*	-.14	.14	.14	-.28***	-.18*	
4. Partner negotiated having sex without condom	.32***	.18*	.34***	.48***	.27***	-.02	-.03	.08	.10	
5. Frequency of condom use	.35***	.35***	-.05	.03	.36***	.00	.06	.14	.22**	
6. Consumed alcohol before sex	-.29***	-.32***	.06	-.08	-.32***	.48***	.46***	-.37***	-.26***	
7. Partner consumed alcohol before sex	-.21**	-.23**	.02	-.07	-.22**	.44***	.41***	-.26***	-.18*	
8. Sex without a condom (alcohol)	.27***	.30***	.06	.17*	.28***	-.39***	-.34***	.46***	.39***	
9. Condom removal while drinking	.20**	.24**	.05	.21**	.18*	-.41***	-.35***	.44***	.49***	

*p≤ .05, **p≤ .01, ***p≤ .001

Table 7

Differences in condom use across relationship type.

	Dating		Casual		*t*
	M	*SD*	*M*	*SD*	
Discuss condom use	1.10	.31	1.26	.45	-3.60*
Condom use	3.14	1.43	3.73	1.63	-4.15*
Negotiation of condom use	1.69	1.68	1.79	2.08	-.56
Condom use during 1st month	3.50	1.64	3.77	1.69	-1.89
Condom use during last/most recent month	2.75	1.69	3.70	1.67	-5.26*

*p< .001

Table 8

Summary of hierarchical regression analysis for predicting whether women reported condom removal while drinking with dating partners.

Step	Variable	β	R^2	ΔR^2	F
1	Risk perception (partners)	-.05	.02	.02	1.73
	Condom use self-efficacy	.15			
2	Risk perception (partners)	-.06	.05	.03*	2.79*
	Condom use self-efficacy	.17*			
	RP x CUSES	.18*			

*p< .05

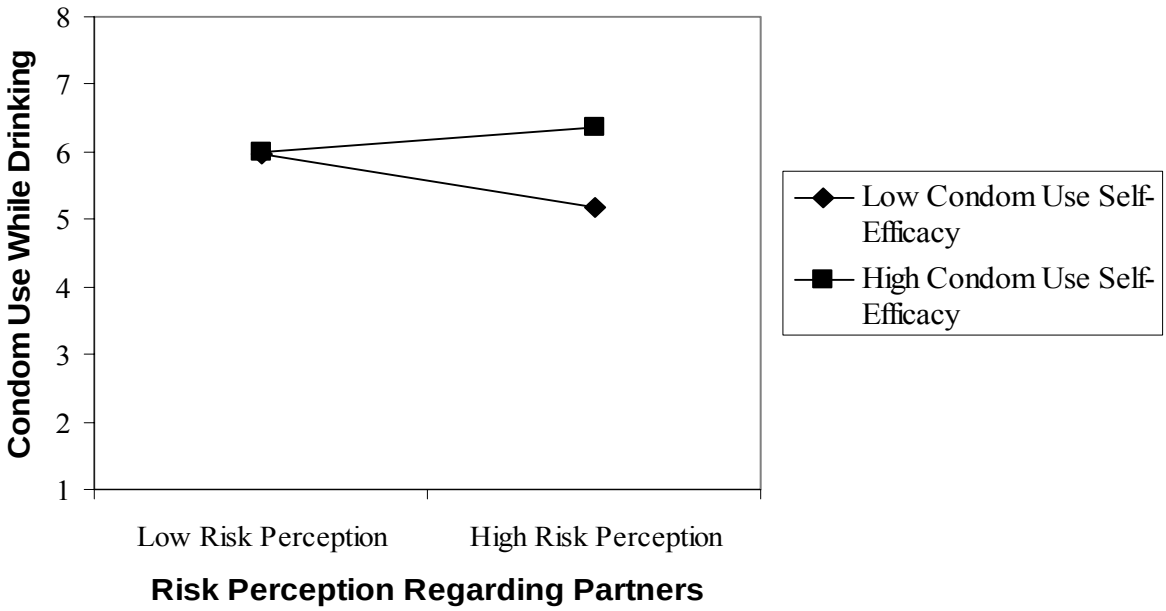

Figure 1. Interaction effects of risk perception regarding partners and condom use self-efficacy in predicting whether women reported condom removal while drinking with dating partners (Note: lower numbers indicate higher frequency of condom removal while drinking).

Table 9

Summary of hierarchical regression analysis for predicting whether women were able to convince their casual partners to have sex with a condom.

Step	Variable	β	R^2	ΔR^2	F
1	Risk perception (partners)	.07	.01	.01	.82
	Condom use self-efficacy	-.09			
2	Risk perception (partners)	.06	.04	.03*	1.89
	Condom use self-efficacy	-.07			
	RP x CUSES	.16*			

*p=.05

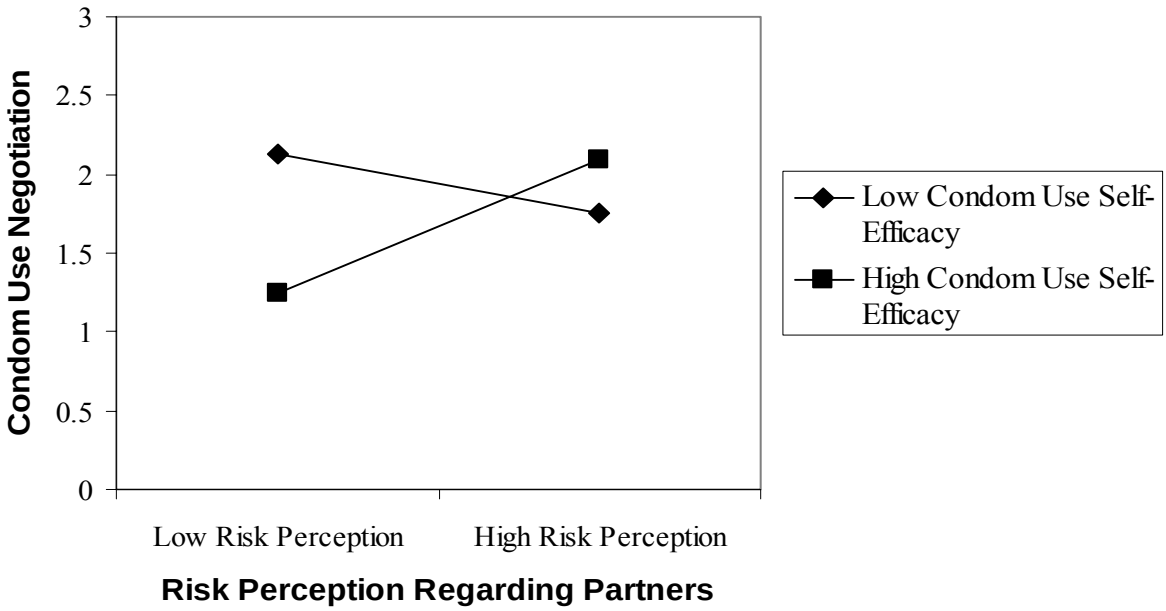

Figure 2. Interaction effects of risk perception regarding partners and condom use self-efficacy in predicting women's condom use negotiation among casual partners. (Note: lower numbers indicate higher frequency of condom use negotiation).

Table 10

Summary of hierarchical regression analysis for predicting whether women reported condom removal while drinking with casual partners.

Step	Variable	β	R^2	ΔR^2	F
1	Risk perception (partners)	.02	.12	.12**	9.80**
	Condom use self-efficacy	.34**			
2	Risk perception (partners)	.01	.14	.02*	8.03**
	Condom use self-efficacy	.36**			
	RP x CUSES	.16*			

*p<.05, **p< .001

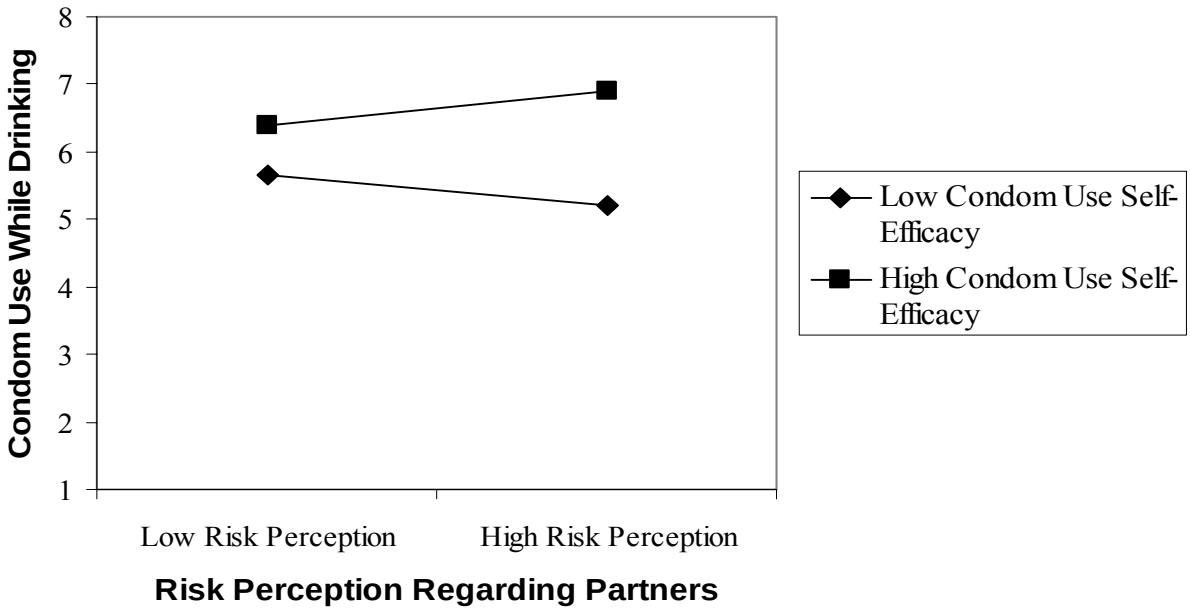

Figure 3. Interaction effects of risk perception regarding partners and condom use self-efficacy in predicting whether women reported condom removal while drinking with casual partners. (Note: lower numbers indicate higher frequency of condom removal while drinking).

Table 11

Summary of hierarchical regression analysis for predicting whether women were able to convince their casual partners to have sex with a condom.

Step	Variable	β	R^2	ΔR^2	F
1	Condom use self-efficacy	-.08	.01	.01	.86
	Alcohol use	-.04			
2	Condom use self-efficacy	-.04	.07	.06*	3.63*
	Alcohol use	-.02			
	CUSES x AU	-.25*			

*p≤ .01

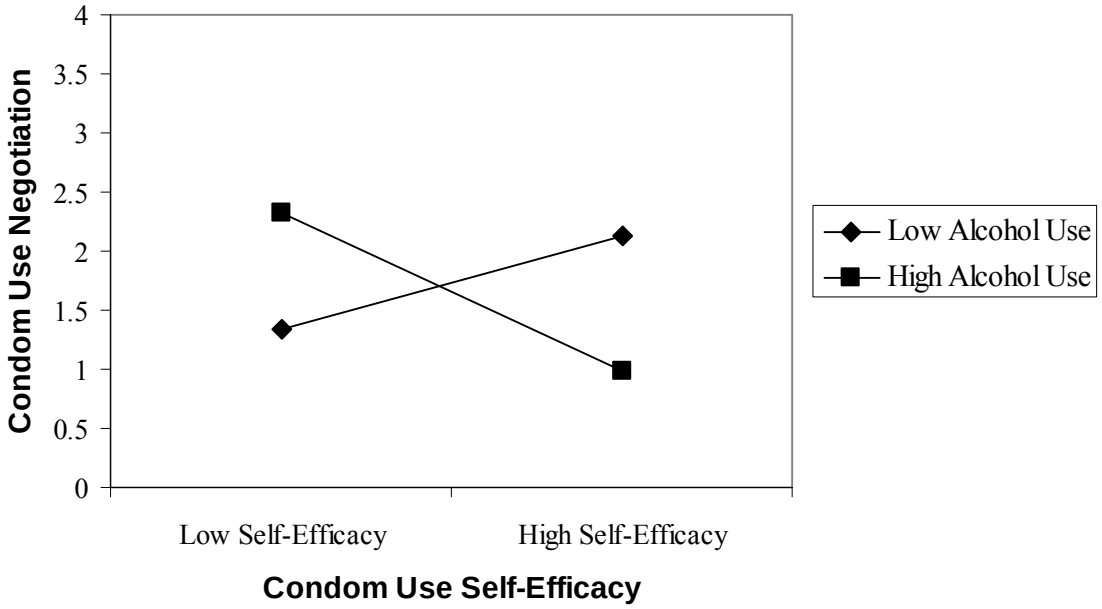

Figure 4. Interaction effects of condom use self-efficacy and alcohol use in predicting women's condom use negotiation among casual partners. (Note: lower numbers indicate higher frequency of condom use negotiation).

Table 12

Analysis of variance examining the effect of relationship type, alcohol use, and alcohol expectancies on condom use variables.

	Condom Use Negotiation	Condom Use		Condom Removal While Drinking	
Source	*F* (1, 148)	*F* (1, 144)	Mean Difference	*F* (1, 146)	Mean Difference
Relationship Type (RT)	.53	9.15**	-.48	.85	
Alcohol Use (AU)	.01	.88		6.48**	.64
Alcohol Expectancies (AE)	1.80	4.30*	-.47	14.89***	.97
RT X AU	.15	.16		5.20*	
RT X AE	.07	3.90*		1.73	
AU X AE	1.04	.03		.001	
RT X AU X AE	5.80*	2.11		.004	

*p≤ .05, **p≤ .01, ***p≤ .001

Table 13

Means and standard errors by alcohol groups, alcohol expectancies, and relationship type for negotiation of condom use.

Alcohol Groups	Alcohol Expectancies	Relationship Type	Mean	Standard Error
Non-heavy	Weak	Dating	1.45	.22
Non-heavy	Weak	Casual	1.90	.27
Non-heavy	Strong	Dating	2.05	.39
Non-heavy	Strong	Casual	1.47	.47
Heavy	Weak	Dating	1.67	.34
Heavy	Weak	Casual	1.04	.42
Heavy	Strong	Dating	1.92	.24
Heavy	Strong	Casual	2.12	.29

(Note: Lower means indicate higher frequency of condom use).

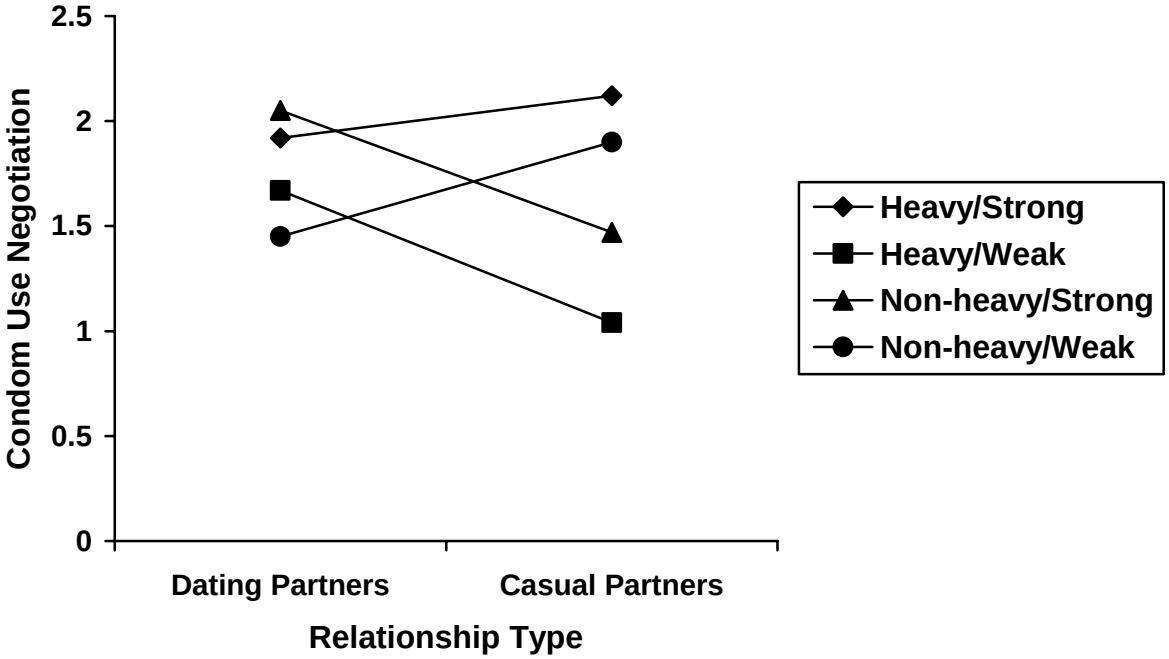

Figure 5. Interaction effects of relationship type, alcohol consumption, and alcohol expectancies on women's condom use negotiation. (Note: lower numbers indicate higher frequency of condom use negotiation).

Table 14

Means and standard errors by alcohol expectancies and relationship type for frequency of condom use.

Alcohol Expectancies	Relationship Type	Mean	Standard Error
Weak	Dating	3.25	.18
Weak	Casual	4.05	.20
Strong	Dating	3.09	.19
Strong	Casual	3.26	.21

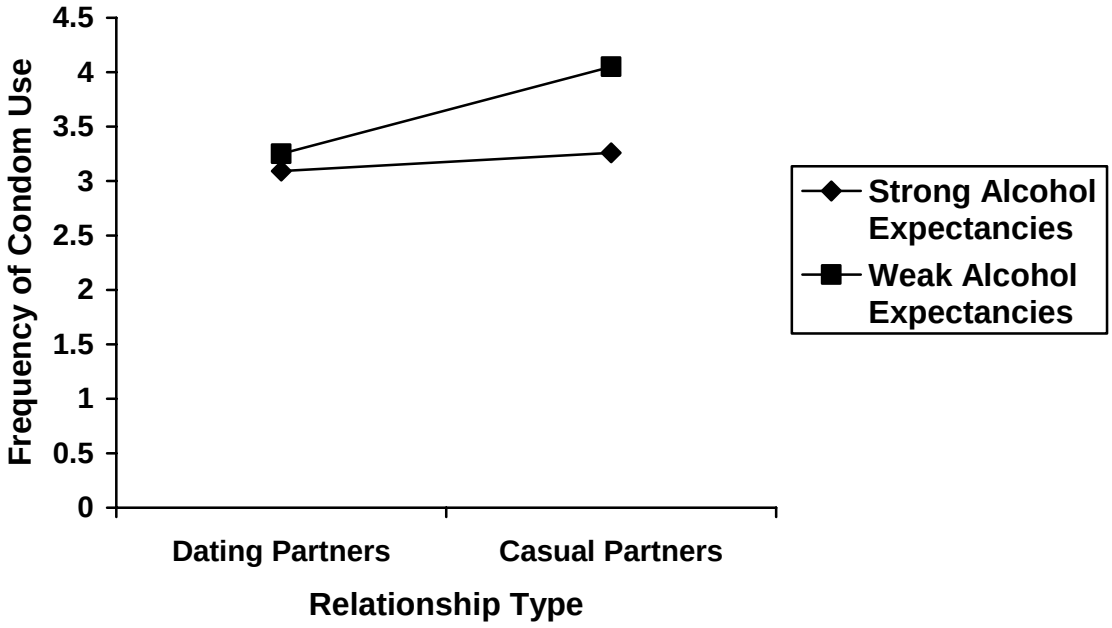

Figure 6. Interaction effects of relationship type and alcohol expectancies on women's report of frequency of condom use.

Table 15

Means and standard errors by alcohol groups and relationship type for women's report of condom removal while drinking.

Alcohol Groups	Relationship Type	Mean	Standard Error
Non-heavy	Dating	6.33	.22
Non-heavy	Casual	6.11	.21
Heavy	Dating	5.33	.21
Heavy	Casual	5.85	.20

(Note: lower numbers indicate higher frequency of having sex with a condom but finishing without a condom due to alcohol use).

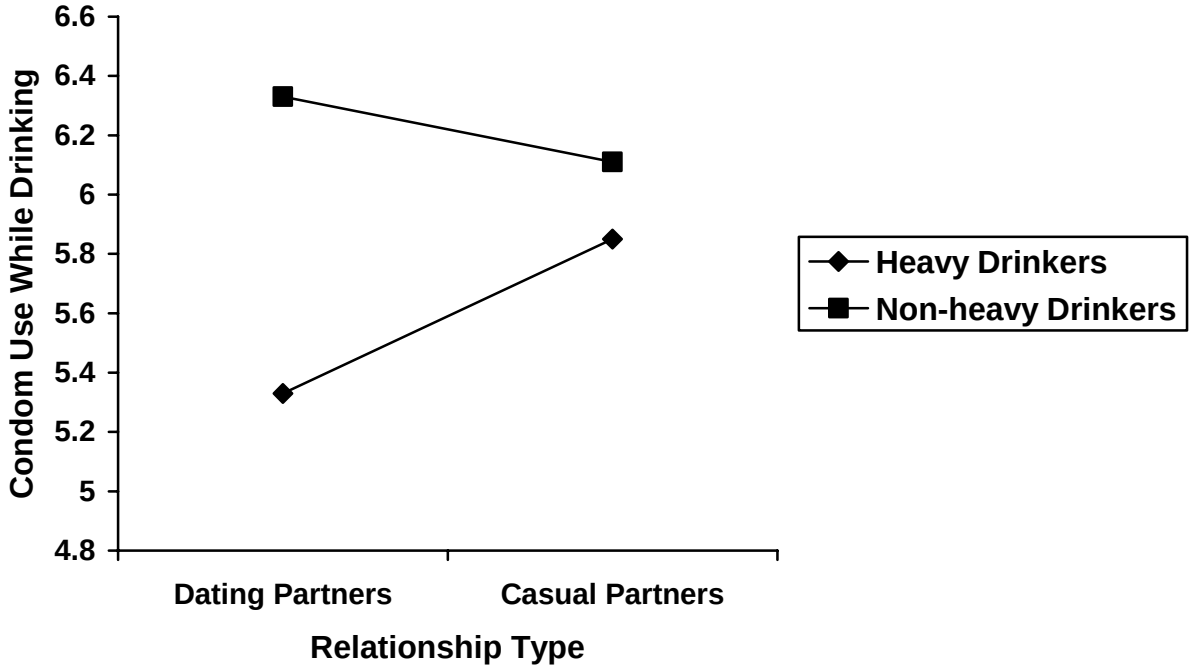

Figure 7. Interaction effects of relationship type and alcohol use on women's report of condom removal while drinking. (Note: lower numbers indicate higher frequency of condom removal while drinking).

CHAPTER 4

DISCUSSION

According to previous research, it is important to take into account contextual factors when examining pre-existing beliefs, attitudes, and experiences in order to have a complete understanding of women's sexual decision-making process (Logan et al., 2002; Norris et al., 2004). For example, although women may possess the skills to negotiate condom use, relationship type and alcohol use can interfere with women's typical decision-making process (Dermen & Cooper, 2000; Uddin, 1996). The overall goal of the present study was to examine the role of relationship type (dating sexual partner versus casual sexual partner) on women's sexual decision-making and HIV-risk behavior, specifically condom use. The role of other contextual variables and interpersonal factors, such as condom use self-efficacy, risk perception, alcohol use, and alcohol expectancies was also examined. The purpose of this approach was to address inconsistencies in women's sexual decision-making across various sexual relationships and examine essential factors predicting HIV-risk behavior within those specific relationships.

When examining associations between the variables of interest, condom use self-efficacy was correlated with all of the condom use variables. Self-efficacy was positively correlated with condom use during the first month of the relationship, condom use during the last/most recent month of the relationship, overall condom use, and condom use negotiation for both dating and casual partners. These findings reiterate the importance of the relationship between higher levels of condom use self-efficacy and safer sexual behavior, regardless of relationship type.

College students have been found to use condoms more consistently during the first month of the relationship than the last/most recent month of the relationship (Civic, 2000). The

current study found no differences in condom use during the first month between dating and casual partners. However, women were less likely to use condoms with dating partners than with casual partners during the last/most recent month of the relationship. This provides further support to the existing literature (Civic, 2000; Critelli & Suire, 1998; Hammer et al., 1996; Logan et al., 2002; Sheeran et al., 1999), in that, earlier in the relationship, women may not have been invested in the relationship and may not have established trust with their sexual partners. Therefore, they may be more likely to use condoms due to a lack of knowledge about a partner's sexual history. However, as the relationship progresses, women may begin trusting their exclusive dating partners and presume monogamy, which may lead to decreased condom use. On the other hand, trust and monogamy are not often the foundation of casual sexual relationships. This may explain why women were more likely to use condoms with casual partners.

Consistent with predictions, alcohol use and other risky behavior were more likely to be correlated with condom use in casual relationships during the first month and the last/most recent month of the relationship. For example as alcohol use, alcohol expectancies, and total number of sexual partners increased, condom use decreased with casual partners during the first month of the relationship. However, this relationship was not found with dating partners. According to previous research, women are more likely to meet their casual sexual partners in social situations where alcohol was consumed by both men and women. Additionally, their alcohol expectancies may be more salient to them in these various social situations. As a result, risky sexual behavior and unprotected sex are more likely to occur with casual sexual partners (Fromme et al., 1999; Misovich et al., 1997; Mongeau & Johnson, 1995), specifically at the beginning of a relationship. Interestingly, the results from this study found that alcohol use, alcohol expectancies, total number of sexual partners also were correlated with condom use during the last/most recent

month of the relationship for casual partners but not for dating partners. These results are inconsistent with previous research, which found that alcohol use was not related to condom use during later sexual experiences (Leigh, 2002). It is possible that despite being the last/most recent month of the relationship, casual relationships typically are shorter and may continue on for only one month or less. Given the typical short time frame of these relationships, it may not allow for significant differences in condom use and factors influencing it during the first month and most/recent month of the relationship.

Overall Condom Use

As expected, when examining overall condom use, women were less likely to use condoms with dating partners than with casual partners. Contrary to predictions, relationship length was not correlated with condom use for both dating and casual partners. It is possible that regardless of relationship length, being in a relationship itself may lead to decreased condom use. Since casual sexual relationships are typically characterized as shorter relationships, it is possible that there is not much variability in relationship length. Interestingly, the longer women knew their dating partners before having sex with them, the more likely they were to use condoms with them. It is possible that these women may typically engage in safer sex behavior, evidenced by them waiting a longer period of time before engaging in sexual activity, which in turn, leads to more frequent condom use throughout the relationship. Additionally, there may be other interpersonal characteristics these women possess, such as low impulsivity and feelings of power, which also may be playing a role.

Previous research has indicated that relationship type often serves as a moderator between alcohol use and condom use (Dermen & Cooper, 2002; Norris et al., 2004). However, when examining overall condom use, an interaction between alcohol use and relationship type

was not found. It is noteworthy that alcohol use was correlated with overall condom use with casual partners but not with dating partners. Additionally, women in casual relationships with weak alcohol expectancies were more likely to use condoms than women in dating relationships with strong alcohol expectancies. This supports previous research, which has found that young adults with strong sex-related alcohol expectancies report perceived benefits of engaging in risky sexual behavior (Fromme et al., 1999).

Condom Use Negotiation

According to previous research, condom use negotiation is a pertinent skill for women to have (Norris et al., 2004). Interestingly, contrary to predictions, there were no significant differences in condom negotiation between dating partners and casual partners. Relationship length and partner familiarity were also not correlated with condom negotiation, suggesting that there are other factors impacting whether women negotiate condom use with various partners. However, as relationship length increased, women were more likely to be convinced to have sex with a condom by their male casual partners. These results suggest that perhaps male casual partners are more likely to be concerned about condom use than their female casual partners. It is possible that male partners are more likely to negotiate condom use as relationship length increases because their female partners are less likely to want to use condoms at that time point. Based on previous research, it is possible that as relationship length increases, women are more likely to trust their partners and believe that condom use was not necessary or foresee the potential of a long-term relationship (Regan & Dreyer, 1999; Rosenthal et al., 1998).

When specifically examining women's condom negotiation skills with casual partners, the results indicated that as levels of condom use self-efficacy increased and risk perception regarding their partners increased, women's likelihood of negotiating condom use decreased.

The finding is surprising because it would be expected that high levels of condom use self-efficacy and high levels of risk perception would lead to increased condom negotiation. However, this finding may highlight the importance of contextual factors. Given that it is a casual relationship, it is possible that women do not need to utilize their condom negotiation skills because their male partners also want to use condoms. On the other hand, assuming that their male partners do not want to use condoms, women also may not perceive condom negotiation as being necessary, even with casual partners. Given that women are typically not very familiar with their casual partners, they may engage in impression management. Women may believe that initiating or negotiating condom use may indicate that they have a promiscuous sexual history or a sexually transmitted disease (Metts & Fitzpatrick, 1992). Since women may be trying to present themselves positively, they may be less likely to negotiate condom use despite typically having high awareness of risk perception and possessing high self-efficacy.

However, interestingly, in casual relationships, as levels of alcohol use increased and levels of condom use self-efficacy increased, women's likelihood of negotiating condom use increased. Individuals often become more disinhibited when consuming alcohol (Critchlow, 1986). Therefore, any concerns of impression management that were present may become insignificant. According to alcohol myopia theory (Steele & Josephs, 1988), when individuals consume large amounts of alcohol, they are only able to pay attention to the most salient cues in the environment. Therefore, potential intercourse with a casual partner may serve as a salient inhibiting cue, highlighting the risk and disadvantages of not negotiating condom use, if necessary. Additionally, it seemed that as levels of alcohol use decreased and levels of condom use self-efficacy increased, women's likelihood of negotiation of condom use decreased. It is possible that similar factors, such as no need for condom negotiation because male partners are

willing to use condoms or impression management, may offer an explanation as to why women may not negotiate condom use despite possessing high levels of self-efficacy.

When examining the role of relationship type, alcohol use and alcohol expectancies on condom negotiation, a three-way interaction was found as hypothesized. The interaction revealed that heavy drinkers in casual relationships with weak alcohol expectancies were more likely to negotiate condom use than non-heavy and heavy drinkers in dating relationships with strong alcohol expectancies. Additionally, heavy drinkers in casual relationships with strong alcohol expectancies were less likely to negotiate condom use than non-heavy drinkers in dating relationships with weak alcohol expectancies. These findings underscore the impact of heavy drinking and strong alcohol expectancies on condom use negotiation and potentially assertiveness skills. College women often consume alcohol in social settings, which is also where they may meet potential casual partners (Mongeau & Johnson, 1995).

There are several factors that may explicate these findings. For example, if women have weaker sex-related alcohol expectancies, they generally have relatively less expectations of becoming more disinhibited or sexually aroused when drinking. Since they do not have these expectations, they may be more likely to engage in safer sexual behavior, especially with a casual sexual partner. Among dating partners, alcohol use and sex-related alcohol expectancies may not lead to increased condom negotiation because other factors, such as maintaining the relationship are more relevant. According to alcohol myopia theory (Steele & Josephs, 1998), relationship maintenance may also serve as a salient cue for women, overshadowing any potential risks, and leading to risky sexual behavior. However, among casual partners when heavy drinkers had strong alcohol expectancies they were generally less likely to use condoms. In this case, strong sex-related expectancies could have been most salient to women. Despite

being in a risky situation, their positive expectancies may outweigh any potential risks. Therefore, condom use negotiation may not be perceived as necessary or worth the time and effort.

Condom Removal while Drinking

Although not specifically hypothesized, one variable of interest that emerged is women's self-reports of starting to have sex with a condom but finishing without one due to alcohol use (i.e., condom removal while drinking). Examining this variable allowed for elucidation of pharmacological effects of alcohol when engaging in sexual intercourse versus alcohol expectancies. Alcohol use is an important contextual variable to consider because it can interfere with cognitive processing of information, influencing sexual decision-making and increasing the likelihood of risky sexual behavior (Fromme et al., 1999; Graves, 1995). However, there are also times when alcohol use can lead to safer sex behavior if the cues in the environment highlight the disadvantages of risky sexual behavior (Steele & Josephs, 1988; Stelle & Josephs, 1990). Previous research has indicated that alcohol use before sex is typically more common among casual partners than dating partners (Corbin & Fromme, 2002; Fromme et al., 1999; Mongeau & Johnson, 1995).

Previous research has indicated that college-aged women often view relationship maintenance as a priority over protecting themselves (Civic, 2000; Corbin & Fromme, 2002). The results from this present study indicated that as levels of condom use self-efficacy decreased and risk perception regarding partners increased women's likelihood of removing a condom while drinking increased with dating partners. These results once again highlight the importance of contextual factors. Despite high awareness of risk perception, condom removal could have occurred due to feelings of security and trust in their dating partners. Given that women were

also consuming alcohol, it is possible that dating partner may have served as an impelling cue (Norris et al., 2004), highlighting the advantages (e.g., increased intimacy, closeness, trust) of engaging in risky sexual behavior.

A significant interaction between condom use self-efficacy and risk perception regarding partners was also found for casual sexual partners. Given that the simple slope analyses were not significant, it is difficult to make a clear interpretation of the interaction. However, a significant interaction indicates that the two slopes of high and low condom use self-efficacy were significantly different from each other. When examining the graph, it appeared that perhaps as women's risk perception regarding their partners increased, women's likelihood of condom removal while drinking increased at lower levels of condom use self-efficacy but decreased at higher levels of condom use self-efficacy. As stated previously, according to alcohol myopia theory (Steele & Josephs, 1988), intoxicated individuals are only able to pay attention to the most salient cues in the environment. Depending on the amount of alcohol consumed, it is possible that risk perception became a salient inhibiting cue for women, highlighting the disadvantages of engaging in risky behavior. This, in turn, can lead women to engage in self-efficacious and safer sexual behavior. However, women who possessed lower levels of condom use self-efficacy may have perceived that condom removal was necessary because their partner may have insisted. Therefore, despite having high risk perception, they may have believed that they do not possess the necessary or sufficient skills to negotiate condom use with their male partners.

Interestingly, in dating relationships, women who were heavy drinkers were more likely to remove a condom while drinking than women who were non-heavy drinkers and in casual relationships. In this case, alcohol myopia theory (Steele & Josephs, 1988) may offer an

explanation as to why women engage in riskier sexual behavior. Sexual arousal and intimacy with dating partners are often salient cues leading to risky sexual behavior. As a result, condom use may be perceived as hindering sexual pleasure and being unnecessary due to feelings of security during sexual intercourse with dating partners.

Limitations

Despite several significant and interesting findings, it is necessary to discuss potential methodological limitations. The cross-sectional design of the study does not allow for any causal interpretations and relies on retrospective data. The majority of women reported on a past behavior with a casual sexual partner and some with a previous dating partner. The time range of these relationships varied, but women were asked to recall relationship characteristics, condom negotiation, and condom use in these previous relationships. They also were asked questions while sober regarding their past sexual behavior when they consumed alcohol. Therefore, it is possible that participants had difficulty recalling important information, and this reflects the general limitation and reliability of self-report data. Finally, the sample of the current study was homogeneous, and the majority of women were Caucasian. Therefore, these results do not generalize to women who are at higher risk for contracting HIV, such as minority (e.g., African American and Hispanic) women.

Implications and Future Research

Although college students are at lower risk for HIV and other STDs when compared to higher risk populations, they are at relatively higher risk than the general population. The findings from this study have several important implications for prevention programming and future researchers. Condom use self-efficacy, relationship type, alcohol use, and alcohol expectancies all emerged as important predictors of condom negotiation and condom use during

various stages of a relationship and various situations. Foremost, college students should be encouraged to get tested for HIV and other STDs. Despite engaging in relatively risky sexual behavior, only 31.6% of this sample had ever been tested for HIV. An increase in HIV testing allows individuals to base their condom use decisions on factual information rather than misguided perceptions of their partner's sexual history and/or feelings of trust.

Condom use self-efficacy emerged as a significant correlate and predictor of safer sexual behavior in women. Given the prominent role of condom use self-efficacy, it should be incorporated as an essential component of prevention programs and should focus on situation-specific rather than global self-efficacy.

MacDonald and colleagues (1996) noted that many intervention programs aim to increase condom use in casual sexual relationships by increasing positive attitudes towards condoms, awareness of benefits, and teaching behavioral skills. However, consistent with the implications of this study's findings, they also emphasize that education about the link between alcohol and risky sexual behavior should be incorporated into prevention programs. One significant goal of this intervention should be to promote individuals to be mindful of their negative attitudes and risks associated with unprotected sex when intoxicated. According to alcohol myopia theory, if the negative consequences of unprotected sex are most salient, individuals will be more likely to engage in safer sexual behavior. One way to help individuals act consistently with their safer sex attitudes is to encourage them and have them commit to engaging in safer sex behavior on a regular basis. As a result, this behavior becomes more of a habit for them and less likely to be "undone" by alcohol use.

The results of this study extend and also highlight the need to address positive sex-related alcohol expectancies. One potential intervention is to challenge these beliefs by using cognitive

restructuring (Darkes & Goldman, 1993). The goal is to teach individuals that alcohol use does not always lead to riskier sexual or disinhibiting behavior, which may decrease the likelihood of accepting intoxication as justifying risky behavior.

As stated previously, the present study was a cross-sectional design. Future researchers should focus on addressing methodological limitations to provide a deeper understanding of the links between relevant factors. One such method may be the "diary" method (Cooper, 2002), where women record behavior soon after a specific event and data can be recorded online. By responding to specific questions relatively quickly, limitations with retrospective data are significantly reduced, and the reliability of self-report data can be increased.

Additionally, assessment of sexual behavior and alcohol cause can be improved by collecting data from both individuals in the relationship. Previous research has indicated that both men and women can influence their partners' drinking behavior (Leonard and Das Eiden, 1998; McNair, Spitalnick, Seth, & Dunn, under review) so it seems essential to examine drinking patterns of the dyad. Attitudes and intentions of engaging in safe sexual behavior in specific situations also should be examined to assess whether they are consistent within the couple. Additionally, information regarding situations where the couple feels conflicted about condom use can also be collected to design appropriately tailored interventions.

Since women are less likely to discuss condom use and overall use condoms in their intimate relationships, it seems that prevention programs also should target the dyad and focus on relationship-specific information (Misovich et al., 1997). Often, the goal of many programs is to change an individual's behavior and reduce HIV-risky behavior. However, the attitudes and behaviors often vary in different sexual relationships. Therefore, it seems necessary to target couples and tailor interventions to meet their specific needs and issues unique to their

relationship. It has been suggested that the belief monogamy protects one against HIV should be challenged. Hobfoll, Jackson, Lavin, Britton, & Shepherd (1993) suggested using "video testimonies" of individuals who have contracted HIV in monogamous relationships with partners they trusted to highlight the potential risk of contracting HIV even from individuals they love and trust. However, the goal of this approach is not to increase mistrust in their partners but to motivate them to communicate more effectively and to discuss past sexual history and HIV testing. Concerns regarding relationship maintenance can be decreased by addressing effectively negotiating condom use without disrupting the relationship (Misovich et al., 1997). Role plays may be beneficial in allowing couples to practice these skills. Programs targeting couples also should include emphasis on social support and health promotion so that they do not become barriers to their partner's and own health.

There are number of potential factors that influence women's sexual decision making. The present study examined the role of some pertinent interpersonal and contextual factors. However, there are a number of relationship factors that also could play a significant role, such as interdependency, intimacy, power, trust, attachment style, and commitment. In conclusion, there are a number of factors that increase and decrease women's risky sexual behavior. Ideally, prevention programs should attempt to tailor various interventions to meet the needs of individuals who vary in levels of condom use self-efficacy, risk perception, alcohol use, and alcohol expectancies. Given that minority women are at an increased risk for contracting HIV, culturally-tailored interventions also are pertinent to address unique issues women of different ethnic backgrounds and cultures face. Efforts should implement methods of teaching effective risk reduction skills that promote assertiveness but do not threaten women's sense of security and intimacy in their relationships.

REFERENCES

Abbey, A., Saenz, C., & Buck, P.O. (2005). The cumulative effects of acute alcohol consumption, individual differences and situational perceptions on sexual decision making. *Journal of Studies on Alcohol, 66*, 82-90.

Bandura (1986). *Social foundations of thought and action: A social cognitive theory*. Engelwood Cliffs, NJ: Prentice Hall.

Bandura (1990). Perceived self-efficacy in the exercise of control over AIDS infection. *Evaluation and Program Planning, 13*, 9-17.

Baron, R.M. & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.

Basen-Engquist, K. (1992). Psychological predictors of "safer sex" behaviors in young adults. *AIDS Education and Prevention, 4*, 120-134.

Brafford, L.J. & Beck, K. H. (1991). Development and validation of a condom self-efficacy scale for college students. *Journal of American College Health, 39*, 219-225.

Bryan, A.D., Aiken, L.S., & West, S.G. (1996). Increasing condom use: Evaluation of a theory-based intervention to prevent sexually transmitted diseases in young women. *Health Psychology, 15*, 371-382.

Buysse, A. (1998). Safer sexual decision making in stable and casual relationships: A prototype approach. *Psychology and Health, 13*, 55-66.

Cabral, R.J., Pulley, L., Artz, L.M., Brill, I., & Macaluso, M. (1998). Women at risk of

HIV/STD: The importance of male partners as barriers to condom use. *AIDS and Behavior, 2*, 75-85.

Carpenter, C.J., Mayer, K.H., Stein, M.D., Leibman, B.D., Fisher, A., & Flore, T. (1991). Human immunodeficiency virus infection in North American women: Experience with 200 cases and review of the literature. *Medicine, 70*, 37-325

Catania, J.A., Coates, T.J., Kegeles, S.M., Thompson-Fullilove, M., Peterson, J., Marin, B., et al. (1992). Condom use in multi-ethnic neighborhoods of San Francisco: The population-based AMEN (AIDS in multi-ethnic neighborhoods) study. *American Journal of Public Health, 82*, 284-287.

Catania, J.A., Kegeles, S.M., & Coates, T.J. (1990). Towards an understanding of risk behavior: An AIDS risk reduction model. *Health Education Quarterly, 17*, 53-72.

Catania, J.A., Stone, V., Binson, D., & Dolcini, M.M. (1995). Changes in condom use among heterosexuals in wave 3 for AMEN study. *Journal of Sex Research, 32*, 193-200.

Centers for Disease Control and Prevention (2002). *HIV/AIDS surveillance report through September 30, 2000*. Atlanta, GA: HIV surveillance.

Centers for Disease Control and Prevention (2003). *HIV/AIDS surveillance in women*. Retrieved April 17, 2006 from http://www.cdc.gov/hiv/graphics/women.htm.

Centers for Disease Control and Prevention (2004). *HIV/AIDS among women*. Retrieved April 17, 2006 from http://www.cdc.gov/hiv/pubs/facts/women.pdf.

Centers for Disease Control and Prevention (2005). *HIV/AIDS Surveillance Report, 2004.* Vol. 16. Atlanta: US Department of Health and Human Services.

Centers for Disease Control and Prevention (2006a). HIV/AIDS and women. Retrieved November 7, 2006 from http://www.cdc.gov/hiv/topics/women/affecting.htm.

Centers for Disease Control and Prevention (2006b). The unique challenges facing women. Retrieved November 7, 2006 from http://www.cdc.gov/hiv/topics/women/challenges-public.htm.

Civic, D. (2000). College students' reason for nonuse of condoms within dating relationships. *Journal of Sex and Marital Therapy, 26*, 95-105.

Collins, R.L., Parks, G.A., & Marlatt, G.A. (1985). Social determinants of alcohol consumption: The effects of social interaction and model status on the self-administration of alcohol. *Journal of Abnormal Psychology, 97*, 218-230.

Cooper, M.L. (2002). Alcohol use and risky sexual behavior among college students and youth: Evaluating the evidence. *Journal of Studies on Alcohol, supp. 14*, 101-117.

Corbin, W.R. & Fromme, K. (2002). Alcohol use and serial monogamy as risks or sexually transmitted diseases in young adults. *Health Psychology, 21*, 229-236.

Critchlow, B. (1996). The powers of John Barleycorn: Beliefs about the effects of alcohol on social behavior. *American Psychologist, 41(7)*, 751-764.

Critelli, J. & Suire, D. (1998). Obstacles to condom use: The combination of other forms of birth control and short-term monogamy. *Journal of American College Health, 46*, 215-219.

Crowe, L.C. & George, W.H. (1989). Alcohol and human sexuality: Review and integration. *Psychological Bulletin, 105*, 374-386.

Darkes, J. & Goldman, M.S. (1993). Expectancy challenge and drinking reduction: Experimental evidence for a mediational processes. *Journal of Consulting and Clinical Psychology, 61*, 344-353.

Dermen, K.H. & Cooper, M.L. (1994). Sex-related alcohol expectancies among adolescents: I. Scale development. *Psychology of Addictive Behaviors, 8*, 152-160.

Dermen, K.H. & Cooper, M.L. (2000). Inhibition conflict and alcohol expectancy as moderators of alcohol's relationship to condom use. *Experimental and Clinical Psychopharmacology, 8*, 198-206.

Dermen, K.H., Cooper, M.L. & Agocha, V.B. (1998). Sex-related alcohol expectancies as moderators of the relationship between alcohol use and risky sex in adolescents. *Journal of Studies on Alcohol, 59*, 71-77.

Desiderato, L.L. & Crawford, H.J. (1995). Risky sexual behavior in college students: Relationships between number of sexual partners, disclosure of previous risky behavior, and alcohol use. *Journal of Youth and Adolescence, 24*, 55-68.

De Visser, R.O & Smith, A.M.A. (2001). Inconsistent users of condoms: A challenge to traditional models of health behaviour. *Psychology, Health, and Medicine, 6(1)*, 41-46.

DiClemente, R.J. (2000). Looking forward: Future directions for HIV prevention research. In J. Peterson & R.J. DiClemente (Eds.), *Handbook of HIV prevention* (pp.311-324). New York: Plenum.

European Study Group (1992). Comparison of female to male and male to female transmission of HIV in 563 stable couples. *British Medical Journal, 304*, 809-813.

Faul, F. & Erdfelder, E. (1992). GPOWER: A priori, post-hoc, and compromise power analyses for MS-DOS [computer programme]. Bonn, FRG: Bonn University, Dep. of Psychology.

Fishbein, M. & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.

Fisher, J., & Fisher, W. (1992). Changing AIDS-risk behavior. *Psychological Bulletin, 111*, 455-474.

Fromme, K., D'Amico, E., & Katz, E. (1999). Intoxicated sexual risk taking: An expectancy or cognitive impairment explanation? *Journal of Studies on Alcohol, 60*, 54-63.

Fromme, K., Katz, E., & D'Amico, E. (1997). Effects of alcohol intoxication on the perceived consequences of risk taking. *Experimental and Clinical Psychopharmacology, 5*, 14-23.

George, W.H. & stoner, S.A. (2000). Understanding acute alcohol effects on sexual behavior. *Annual Review of Sex Research, 11*, 92-124.

Gold, R.S., Karmiloff Smith, A., Skinner, M.J., & Morton, J. (1992). Situational factors and thought processes associated with unprotected intercourse in heterosexual students. *AIDS Care, 4*, 305-323.

Goldman, J.A. & Harlow, L.L. (1993). Self-perception variables that mediate AIDS-preventive behavior in college students. *Heath Psychology, 12*, 489-498.

Gomez, C.A., & Marin, B.V. (1996). Gender, culture, and power: Barriers to HIV prevention strategies for women. *The Journal of Sex Research, 33*, 355-362.

Graves, K.L. (1995). Risky sexual behavior and alcohol use among young adults: Results from a national survey. *American Journal of Health Promotion, 10*, 27-36.

Graves, K.L. & Leigh, B. (1995). The relationship of substance abuse to sexual activity among young adults in the United States. *Family Planning Perspectives, 27*, 18-22.

Hammer, J.C., Fisher, J.D., Fitzgerald, P., & Fisher W.A. (1996). When two heads aren't better than one: AIDS risk behavior in college-age couples. *Journal of Applied Social Psychology, 26*, 375-397.

Harris, L.M. (2006). *The context of unprotected sex: Relationship factors and alcohol as predictors of college women's sexual risk-taking behaviors*. Unpublished doctoral dissertation. University of Georgia.

Harvey, S.M., Thorburn-Bird, S., Galavotti, C., Duncan, E.A.W., & Greenberg, D. (2002). Relationship power, sexual decision making, and condom use among women at risk for HIV/STDs. *Women and Health, 36(4)*, 69-83.

Hobfoll, S.E., Jackson, A.P., Lavin, J., Britton, P.J., & Shepherd, J.B. (1993). Safer sex knowledge, behavior, and attitudes of inner-city women. *Health Psychology, 12*, 481-488.

Hou, S.I. & Wisenbaker, J. (2005). Using a web-based survey to assess correlates of intention towards HIV testing among never-been-tested but sexually experienced college students. *AIDS Care, 17*, 329-334.

Josephs, R.A., & Steele, C.M. (1990). The two faces of alcohol myopia: Attentional mediation of psychological stress. *Journal of Abnormal Psychology, 99 (2)*, 115-126.

Kelly, J.A. & Kalichman, S.C. (1995). Increased attention to human sexuality can improve HIV-AIDS prevention efforts: Key research issues and directions. *Journal of Consulting and Clinical Psychology, 63*, 907-918.

Kline, A., Kline, E., & Oken, E. (1992). Minority women and sexual choice in the age of AIDS. *Social Science and Medicine, 34*, 447-457.

Koch, P.B., Palmer, R.F., Vicary, J.R., & Wood, J.M. (1999). Mixing sex and alcohol in college: Female-male HIV risk model. *Journal of Sex Education and Therapy, 24*, 99-108.

Koumans, E.H., Sternberg, M.R., Motamed, C., Kohl, K. Schillinger, J.A., & Markowitz, L.E. (2005). Sexually transmitted disease services at US colleges and universities. *Journal of American College Health, 53(5)*, 211-217.

LaBrie, J.W., Schiffman, J., & Earleywine, M. (2002). Expectancies specific to condom use mediate the alcohol and sexual risk relationship. *Journal of Sex Research, 39*, 145-152.

Leigh, B.C. (2002). Alcohol and condom use: A meta-analysis of event-level studies. *Sexually Transmitted Diseases, 29*, 476-482.

Leigh, B.C. & Stall, R. (1993). Substance use and risky sexual behavior for exposure to HIV: Issues in methodology, interpretation, and prevention. *American Psychologist, 48* 1035-1045.

Leonard, K.E. & Das Eiden, R. (1999). Husband's and wife's drinking: unilateral or bilateral influences among newlyweds in a general population sample. *Journal of Studies on Alcohol, 13***,** 130-138.

Logan, T.K., Cole, J., & Leukefield, C. (2002). Women, sex and HIV: Social and contextual factors, meta-analysis of published interventions, and implications for practice and research. *Psychological Bulletin, 105*, 361-373.

MacDonald, T.K., MacDonald, G., Zanna, M.P. & Fong, G.T. (2000). Alcohol, sexual arousal, and intentions to use condoms in young men: Applying alcohol myopia theory to risky sexual behavior. *Health Psychology, 19(3)*, 290-298.

MacDonald, T.K., Zanna, M.P., & Fong, G.T. (1996). Why common sense goes out the window: The effects of alcohol on intentions to use condoms. *Personality and Social Psychology Bulletin, 22*, 763-775.

Maibach, E. & Flora, J. (1993). Symbolic modeling and cognitive rehearsal: Using video to promote AIDS prevention self-efficacy. *Communication Research, 2*, 517-545.

Marmor, M., Krasinski, K., Sanchez, M., Cohen, H., Dubin, N., Weiss, L., et al. (1990). Sex, drugs, and HIV infection in a New York City hospital outpatient population. *Journal of Acquired Immunodeficiency Syndromes, 3*, 307-318.

McNair, L.D., Spitalnick, J.S., Seth, P., & Dunn, J.K. (2007). *Alcohol use in dating college*

couples: Convergent and concordant drinking patterns. Manuscript submitted for publication.

Metts, S. & Fitzpatrick, M.A. (1992). Thinking about safer sex: The risky business of "know your partner" advice. In T. Edgar, M.A. Fitzpatrick, & V.S. Freimuth (Eds.), *AIDS, a communication perspective* (pp. 1-20). Hillsdale, NJ: Lawrence Erlbaum Associates.

Michael, R.T., Gagnon, J.H., Laumann, e.O., & Kolata, G. (1994). *Sex in America: A definitive survey*. Boston: Little, Brown & Co.

Misovich, S.J., Fisher, J.D., Fisher, W.A. (1997). Close relationships and elevated HIV risk behavior: Evidence and possible underlying psychological processes. *Review of General Psychology, 1(1)*, 72-107.

Monahan, J.L., Murphy, S.T., & Miller, L.C. (1999). When women imbibe: Alcohol and the illusory control of HIV risk. *Psychology of Women Quarterly, 23*, 643-651.

Mongeau, P.A. & Johnson, K.L. (1995). Predicting cross-ex first-date sexual expectations and involvement: Contextual and individual difference factors. *Personal Relationships, 2*, 301-312.

Moore, S. & Parker-Halford, A. (1999). Barriers to safer sex: Beliefs and attitudes among male and female adult heterosexuals across four relationship groups. *Journal of Health Psychology, 4(2)*, 149-164.

Murphy, S.T., Monahan, J.L., & Miller, L.C. (1998). Inferences under the influence: The impact of alcohol, attractiveness, and risk on women's sexual decision making. *Personality and Social Psychology Bulletin, 24*, 51-528.

Norris, J., Masters, N.T., & Zawacki, T. (2004). Cognitive mediation of women's sexual

decision-making: The influence of alcohol, contextual factors, and background variables. *Annual Review of Sex Research, 15*, 258-296.

O'Leary, A. (2000). Women at risk for HIV from a primary partner: Balancing risk and intimacy. *Annual Review of Sex Research, 11*, 191-234.

Phillips, K.A. (1993). Factors associated with voluntary HIV testing for African-Americans and Hispanics. *AIDS Education and Prevention, 5*, 95-103.

Pinkerton, S.D., & Abramson, P.R. (1993). Evaluating the risks: A Bernoulli process model of HIV infection and risk reduction. *Evaluation Review, 17*, 504-528.

Plant, M.L., Plant, M.A., Peck, D.F., & Setters, J. (1989). The sex industry, alcohol, and illicit drugs: Implications for the spread of HIV infection. *British Journal of the Addictions, 84*, 53-59.

Prager, K.J. (1995). *The psychology of intimacy*. New York: Guilford.

Prince, A., & Bernard, A.L. (1998). Sexual behaviors and safer sex practices of college students on a commuter campus. *Journal of American College Health, 47 (1)*, 11-21.

Pulerwitz, J., Gortmaker, S.L., & DeJong, W. (2000). Measuring sexual relationship power in HIV/STD research. *Sex Roles, 42*, 637-660.

Regan, P., & Dreyer, C. (1999). Lust? Love? Status? Young adults' motives for engaging in casual sex. *Journal of Psychology and Human Sexuality, 11*, 1-25.

Rosenstock, I. (1974). The health belief model and preventive health behavior. *Health Education Monographs, 2*, 354-385.

Rosenthal, D., Gifford, S., & Moore, S. (1998). Safe sex or safe love: Competing discourses? *AIDS Care, 10*, 35-47.

Schlenker, B.R., Britt, T.W., & Pennington, J. (1996). Impression regulation and management:

Highlights of a theory of self-identification. In R. M. Sorentino & E.T. Higgins (Eds.) *Handbook of motivation and cognition: Vol. 3. The interpersonal context* (pp. 118-147). New York: The Guilford Press.

Seth, P. & McNair, L.D. (2006). Condom use in college couples: The influence of drinking behavior and length of relationship. Poster presented at the Association of Behavioral and Cognitive Therapies, Chicago, IL.

Sharts-Hopko, N. (1997). STDs in women: What you need to know. *American Journal of Nursing, 97*, 46-55.

Sheer, V.C. & Cline, R.J. (1994). The development and validation of a model explaining sexual behavior among college students: Implications for AIDS communication campaigns. *Human Communication Research*, 21*, 280-304.*

Sheeran, P., Abraham, C., & Orbell, S. (1999). Psychosocial correlates of heterosexual condom use: A meta-analysis. *Psychological Bulletin, 125*, 1063-1078.

Smith, B.N. & Stasson, M.F. (2000). A comparison of health behavior constructs: Social psychological predictors of AIDS-preventive behavioral intentions. *Journal of Applied Social Psychology, 30*, 443-462.

Soet, J.E., Dudley, W.N., & Dilorio, C. (1999). The effects of ethnicity and perceived power on women's sexual behavior. *Psychology of Women Quarterly, 23*, 707-723.

Soler, H., Quadagno, D., Sly, D.F., Riehman, K.S., Eberstein, I.W., & Harrison, D.F. (2000). Relationship dynamics, ethnicity, and condom use among low-income women. *Family Planning Perspectives, 32*, 82-101.

Steele, C.M., & Josephs, R.A. (1988). Drinking your troubles away II: An attention-allocation

model of alcohol's effect on psychological stress. *Journal of Abnormal Psychology, 97*, 196-205.

Steele, C.M. & Josephs, R.A. (1990). Alcohol myopia: Its prized and dangerous effects. *American Psychologist, 45 (8)*, 921-933.

Stone, K.M., Timyan, J., & Thomas, E.L. (1999). Barrier methods for the prevention of sexually transmitted diseases. In K.K. Holmes, P.F. Sparling, P. Mardh, S.M. Lemon, W.E. Stamm, Piot, P., et al. (Eds.), *Sexually Transmitted Diseases* (pp. 1307-1322). New York: McGraw-Hill.

Temple, M.T. & Leigh, B.C. (1992). Alcohol consumption and risky sexual behavior in discrete events. *Journal of Sex Research, 29*, 207-219.

Testa, M. & Collins, R.L. (1997). Alcohol and risky sexual behavior: Event-based analyses among a sample of high-risk women. *Psychology of Addictive Behaviors, 11(3)*, 190-201.

Thompson, S.C., Anderson, K., Freedman, D., & Swan, J. (1996). Illusions of safety in a risky world: A study of college students' condom use. *Journal of Applied Social Psychology, 26*, 189-210.

Uddin, M. (1996). College women's sexuality in an era of AIDS. *Journal of American College Health, 44*, 252-261.

Wasserheit, J. (1997). *STD prevention in the United States: National objectives and strategies*. Paper presented at Workshop of Setting National STD Goals, Ottawa, Canada.

Williams, S.S., Kimble, D.L., Covell, N.H. Weiss, L.H., Newton, K.J., Fisher, J.D., et al. (1992). College students use implicit personality theory instead of safer sex. *Journal of Applied Social Psychology, 22*, 921-933.

Wilson, G.T. (1981). The effects of alcohol on human sexual behavior. *Advances in Substance*

Abuse, 2, 1-46.

Wulfert, E. & Wan, C.K. (1993). Condom use: A self-efficacy model. *Health Psychology, 12*, 346-353.

Yzer, M.C., Siero, F.W., & Buunk, B.P. (2001). Bringing up condom use and using condoms with new sexual partners: Intentional or habitual? *Psychology and Health, 16*, 409-421.