SEXUAL HEALTH AND THE SEXUAL SELF: EXAMINING THE MULTIDIMENSIONALITY OF SEXUALITY AND ITS RELATIONSHIP TO SEXUAL RISK-TAKING IN COLLEGE MEN

by

JOSHUA S. SPITALNICK

(Under the Direction of Lily D. McNair)

ABSTRACT

Sexual risk-taking behavior has been found to increase one's exposure to sexually transmitted infections, including HIV/AIDS. Therefore, the current study investigated issues related to men's sexuality and sexual health in an effort to increase our understanding of factors that contribute to and reduce one's likelihood of engaging in risky sexual behavior. One focus of this study examined the relationship between sexual risk-taking behaviors and intrapersonal sexuality constructs (i.e., sexual esteem and sexual self-schema). A second area of inquiry evaluated the reliability of the Information-Motivation-Behavioral Skills (IMB) model (Fisher & Fisher, 1992) as a tool to predict AIDS preventive behaviors. The participants (N = 465), males from a large Southeastern university, completed an internet-based survey. Although the use of sexual self-schema to predict risky sexual behavior was not supported, results did suggest that sexual esteem represents a useful construct from which we can predict sexual risk-taking behavior. Results also confirmed the reliability of the IMB model as a tool to predict AIDS preventive behaviors in heterosexual male university populations. Further, moderation analyses confirmed that risk-reducing motivation does influence whether males activate behavioral skills to reduce their risk of contracting AIDS and other sexually transmitted infections. Implications of these findings and limitations of this study are discussed. Suggestions for future research are also presented.

INDEX WORDS: Sexual risk-taking, Condom Use, Sexual Self-Schema, Sexual Esteem, HIV/AIDS

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JOSHUA S. SPITALNICK

A.B., The University of Georgia, 1998

M.A., John Jay College of Criminal Justice, 2000

M.S., The University of Georgia, 2003

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JOSHUA S. SPITALNICK

Major Professor: Lily D. McNair

Committee: Karen Calhoun
Kimberly Shipman

Electronic Version Approved:

Maureen Grasso
Dean of the Graduate School
The University of Georgia
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Introduction

For half a century, research efforts have provided psychologists and other clinicians valuable information with regard to sexual health, behavior, and sexual attitudes (e.g., Kinsey, Pomeroy, & Martin, 1948). Utilizing these scientific findings, researchers have continued to address the evolving sexual climate and variety of sexual health-related problems by developing regional, national, and global health strategies to advance sexual health and responsible sexual behavior (Coleman, 2002). These scientific developments have increased our understanding and awareness of the complexity of sexuality and sexual health issues and have led to the improvement of sexual education and sexual health interventions.

With regard to male sexuality and sexual health, research historically relied on interview-based methods of data collection employed by Alfred Kinsey (Kinsey et al., 1948) and was then followed by other methods such as self-report measures of sexual behavior (e.g., Bentler, 1968; Brady & Levitt, 1965; Zuckerman, 1973). More recently, other methodological approaches to sexuality research have included epidemiological approaches using telephone and in person surveys (e.g., Laumann, Gagnon, Michael, & Michaels, 1994). Internet and other computer-based methods are beginning to be used as they typically provide additional attempts to insure participant anonymity, despite their own methodological flaws (for a discussion of these issues, see Mustanski, 2001). Much of the early research with men also employed psychophysiological methods such as plethysmographs to assess men's arousal patterns as well as the use of self-reports of participants' subjective sexual experiences related to desire, arousal, sexual satisfaction, and erectile functioning (Andersen, Cyranowski, & Espindle, 1999). Only recently have researchers broadened the investigative focus in men beyond sexual behavior, arousal patterns, and sexual functioning. These efforts have yielded significant findings that have

examined more intrapersonal areas of sexuality, such as sex guilt, sexual esteem, sex anxiety, sexual self-schema, and sexual attitudes (see Andersen, Cyranowski, & Espindle, 1999; Bailey, Hendrick, & Hendrick, 1987; Janda & O'Grady, 1980; Mosher, 1966, 1979; Snell, Hawkins, Belk, 1988; Snell & Papini, 1989). Although these investigations represent a conceptual area of male sexuality research that can be reliably measured, they do represent a small fraction of published studies on men's sexual health, warranting a need for more investigations.

In addition to these advancements in sexuality research over the past few decades, several significant changes have occurred that have also heightened the need for more research that aims to increase our understanding of men's sexual health issues. The decrease in age and increase in frequency in which both young men and women are engaging in sexual activity (e.g., Rosenthal & Smith, 1997; Sawyer & Smith, 1996) and the emergence of the HIV/AIDS epidemic in the 1980s have created a heightened level of need for innovative research that addresses these sexual health concerns. Despite an increased awareness with regard to HIV/AIDS and advancements in sexual health-related education and intervention research, the behaviors of sexually active high school and college students have surprisingly changed very little (DiClemente, Forrest, Mickler, 1990; Fisher & Misovich, 1990; Kegeles, Adler, & Irwin, 1988; MacDonald, Wells, Fisher, Warren, King, Doherty, & Bowie, 1990). Moreover, despite the fact that the overall incidence of newly diagnosed AIDS cases in the United States seems to be declining, a comparable decline of newly diagnosed cases in youth populations (aged 13 to 24) has not been found (CDC, 2003). Thus, there remains an emerging concern with regard to the sexual health of adolescents and young adults in the United States.

Men's sexuality and sexual health have been areas of clinical focus for several decades. In the past, however, sexuality research with men has focused primarily on sexual behavior,

sexual responses, and related sexual attitudes (Andersen, Cyranowski, & Espindle, 1999) with little attention given to intrapersonal sexuality constructs such as affective and cognitive components of one's sexuality. Therefore, one of the goals of this study is to evaluate the utility of intrapersonal sexuality constructs by assessing the correlation and predictive validity of affective (i.e., sexual esteem) and cognitive (i.e., sexual self-schema) sexuality constructs that have been recently used to examine various sexual behaviors. A second goal of this study is to test a theoretical model of health behavior (i.e., the Information-Motivation-Behavioral [IMB] Model; Fisher & Fisher, 1992) and determine the manner in which intrapersonal sexuality constructs impact the IMB theory. Overall, it is this study's intention to demonstrate the importance and need for future research that investigates men's sexual health behavior and the factors that contribute to these issues.

This study will examine the relationship among sexual esteem and sexual self-schema with measures of sexual risk-taking in men from a university population. In doing so, it is important to first discuss the sexual behaviors and sexual health effects of sexual behavior, such as the contraction of Sexually Transmitted Infections (STIs) and HIV/AIDS. Related to sexual behavior, this discussion will include a review of the literature that has examined condom use behavior and other sexual risk-related behaviors in adolescent and young adult populations. Theoretical models that have been proposed to explain health-related behavior will also be presented. Finally, the multidimensionality of sexuality will be discussed with particular focus on investigations that have examined intrapersonal sexuality constructs, including sexual esteem and sexual self-schema, two constructs of focus in the current investigation.

Literature review

Sexual behavior in adolescents and young adults

Sexual activity in adolescent and young adult populations has been extensively investigated. As the level of adolescents' sexual behavior in the U.S. increases, the average age of first intercourse has decreased over the last two decades (Sawyer & Smith, 1996; United States Department of Health and Human Services [USDHHS], 1991). Researchers have found that many young men and women have their first sexual intercourse experience during the teen years with men around 16 and women at 17 (Alan Guttmacher Institute, 1994). In 2003, it was reported that while 47% of high school students had ever had sexual intercourse, 14% of high school students have had four or more sexual partners (Grunbaum et al, 2004). Previous research has also reported that men engage in higher frequency of sexual behavior and also report having more sexual partners than women (Carroll, 1991; Pepe, Sanders, & Symons, 1993). For men in particular, it has been reported that by age 20, 86% of adolescent men in the U.S. will have engaged in sexual intercourse (USDHHS, 1991).

For both men and women, college can represent a time of experimentation in which sexual activity is engaged in at a particularly high frequency, regardless of whether they have been sexually active prior to college. At its highest estimates, reports of college students being sexually active in college have ranged from 80 to 90% (Bishop & Lipsitz, 1991; DiClemente et al., 1990; Douglas et al., 1997; Lewis, 1995, Lewis, Malow, & Ireland, 1997; MacDonald et al., 1990; Mahoney, Thombs, & Ford, 1995; O'Leary, Goodheart, & Jemmott, 1992). Although sexual behavior can be a very positive and healthy experience for young adults, sexual behavior in this demographic has often been linked to specific health risks. Therefore, since college students are at a time in their lives when sexual exploration is particularly high (Cochran &

Peplau, 1991), increasing their vulnerability to potential health-related risks associated with this sexual behavior, this population continues to warrant investigations aimed at understanding and identifying potential risk factors.

HIV/AIDS and other sexually transmitted infections

The sexual health literature has overwhelmingly reported that adolescents and young adults are an especially high risk population for contracting and spreading STIs, including HIV/AIDS. Only 10 years ago, approximately 3 million adolescents in the U.S. were infected with sexually transmitted infections (Donovan, 1993). More recent investigations have reported that out of approximately 15 million new STI cases diagnosed each year, one-quarter, or almost 4 million cases, are diagnosed in teenage populations (CDC, 2000). Reports have estimated that approximately 25% of all the new STI cases are diagnosed in the United States each year in those under the age of 20 (National Institute of Allergy & Infectious Diseases, 1997). This rate drastically increases as almost two-thirds of those who acquire STIs in the United States are less than 25 years of age (Institute of Medicine, 1997). A 1998 report by the CDC reported that 82% of all cases of chlamydia and gonorrhea in the U.S. occur in those between ages 15-29 (CDC, 1998). Among sexually active teenagers and university students, prevalence estimates of STIs have ranged from 19 to 30% (Desiderato & Crawford, 1995). In a sample of 285 university students, 8.8% of the sample reported ever being treated for an STI (Caron, Davis, Halteman, & Stickle, 1993).

Investigations have also shown that the sexual activity of adolescents and young adults, particularly college students, increases the risk of contracting and spreading HIV/AIDS (Eisenberg, 2001). In the Unites States, 50% of all new HIV infected individuals are diagnosed in people under the age of 25 (Office of National AIDS Policy, 1996). In 1999, HIV was the fifth

leading cause of death for people in the United States between the ages of 25 and 44 (CDC, 2003). In 2000, almost 1,700 more people between the ages 13 and 24 were reported with AIDS, contributing to an increased trend of new diagnosed cases each year with over 31,000 cumulative cases of AIDS in this age group to date (CDC, 2003). Although these health risks impact anyone who is sexually active, researchers have found that university students in monogamous relationships report feeling somewhat immune from possible infection of STIs and HIV/AIDS (Desiderato & Crawford, 1995; Ishii-Kuntz, Whitbeck, & Simons, 1990). Regardless of relationship status, the risk of contracting an STI or HIV/AIDS remains a particular concern as researchers continue to identify increases in sexual activity at earlier ages with a broader range of partners than in previous generations (Reitman, St. Lawrence, Jefferson, Allyne, Brasfield, & Shirley, 1996; Rosenthal & Smith, 1997).

Condom use behavior

Sexual health researchers have consistently found that condom use behavior serves as a protective factor for the transmission of STIs and HIV/AIDS. Accordingly, multiple researchers have reported that failing to use condoms, or even using them inconsistently, can contribute to an increased risk for being infected or spreading STIs and HIV/AIDS (Desiderato & Crawford, 1995; Holtzman, Mathis, Kann, Collins, & Kolbe, 1995; Reitman et al., 1996).

The frequency and consistency with which adolescents and young adults use condoms markedly varies and has been implicated in the increased risks associated with sexual behavior in this population. Specifically in the college population, condom use has been found to be infrequent and inconsistent (Freimuth, Hammond, Edgar, MacDonald, & Fink, 1992). In a study of 285 male and female university students, 93.3% reported ever engaging in sexual intercourse in which a condom was used, and 80.3% of those who have had sex since being at college

reporting having used a condom since arriving at school (Caron et al., 1993). Eisenberg (2001), however, found that less than half of sexually active college students consistently use condoms in an attempt to reduce the risk of STI transmission. Freimuth et al. (1992) found similar rates on condom use, reporting that 56% of college students reported not using a condom during their most recent sexual encounter with a new partner. In a sample of participants aged 14 to 19, Kegeles, Adler, and Irwin (1988) reported that 41-49% of the men had used condoms in the preceding month. These researchers also found that only 2-8% of the men in their study reported using condoms every time they engaged in sexual intercourse, a rate that has varied significantly, with estimates as high as 20% to 33% of sexually active students reporting consistent use (Caron et al., 1993; Douglas et al., 1997; Valdiserri, Arena, Proctor, & Bonati, 1989). Similarly, MacDonald et al. (1990) found that only 24.8% of the men endorsed always using condoms during sexual intercourse. Overall, consistent condom use continues to be inconsistent in university samples, even though this population typically seems well informed about the risks associated with HIV and about the possibility of spread of STIs unprotected sexual intercourse (Cline, Freeman, & Johnson, 1990).

Beyond simply identifying prevalence rates of condom use, researchers have also attempted to identify correlates of condom use that might be associated with an increase in condom use and safer sexual behavior. Sheeran, Abraham, and Orbell (1999) conducted a meta-analysis of studies of the psychosocial correlates of condom use. They found that, overwhelmingly, the variables tested were concurrent measures of demographic factors such as socioeconomic status and education, attitudinal factors such as attitudes toward condom use, and various sexual behaviors such as number of partners and frequency of sexual experiences. The Attitude Toward the Condom Scale (ATCS) was developed and validated by Brown (1984) and

has received much attention in the literature as a tool to better understand condom use behavior. Researchers investigating attitudes toward condoms have found that although men are not typically likely to suggest the use of condom, those with more positive attitudes toward condom use are more likely to provide and use condoms (Brafford & Beck, 1991; Baffi, Schroeder, Redican, & McCluskey, 1989; Caron et al., 1993; Geringer, Marks, Allen, & Armstrong, 1993). In addition to attitudes toward condom use, researchers have examined stage model theories regarding condom use as another way to predict condom use behavior (see Ajzen, 1987; Byrne and Fisher, 1983; Fishbein and Ajzen, 1975; Fisher, 1990). Although these approaches have been useful in identifying correlates that contribute to increased condom use behavior, more constructs need to be evaluated that are also likely to be implicated in positive condom use behavior.

Safe sex communication

In an effort to identify protective factors against sexual risk-taking and STIs and HIV/AIDS, researchers have investigated the role of communication between sexual partners with regard to negotiating condom use and sexual behavior. It has been postulated that safe sex communication with one's sexual partners can serve as a powerful weapon in the fight to curb the spread of AIDS and HIV infection (Troth & Peterson, 2000). In a recent survey of 262 sexually active college students, Desiderato and Crawford (1995) reported that students were not likely to disclose having contracted an STI, having had prior sexual partners, or having not used condoms in the past to their partners. One investigation that examined role of communication asked a group of university students about their previous discussions of AIDS in dating relationships and about their sexual risk-taking behavior (Cline et al., 1990). These researchers reported that only 21% of the students endorsed having discussed AIDS prevention, condom use,

sexual history, or monogamy with his or her sexual partner. Out of the other 79% of these participants, 36% had not discussed AIDS with their partners at all. Disparaging, however, was the fact that the likelihood of either buying a condom or using one for oral, vaginal, or anal intercourse did not differ between those who discussed AIDS and the "nontalkers." To account for the high rates of choosing not to discuss condom use, Cline et al. (1990) suggested that the request to use a condom may be misinterpreted as a lack of trust in their partner or as an indication that they themselves have engaged in promiscuous behavior in the past.

The data surrounding effective communication about condoms and AIDS and their relationship to safe sex practices remain unclear. Young adults continue to be reluctant to communicate about condoms with their sexual partners (Desiderato & Crawford, 1995; Troth & Peterson, 2000). Despite being generally well educated about STIs, HIV/AIDS, and other related health risks, many university students feel unprepared to discuss safe sex issues with their sexual partners before the first sexual encounter (Troth & Peterson, 2000). Therefore, it is possible that considering other variables related to one's sexuality might aid in explicating these relationships. Such variables might be related to individuals feeling more secure and positive about his or her sexuality and therefore engaging in patterns of sexual communication that are more effective and lead to safer sexual behavior.

Sexual risk-taking

During a time period in which men and women are engaging in sexual behavior at younger ages than in previous generations and when there have been increases in individuals diagnosed with STIs or infected with HIV/AIDS, concern remains regarding how to increase safer sex practices. Although both men and women have been found to engage in risky sexual behavior, men have been found to report feeling less motivated to avoid participating in risky

sexual behaviors (Snell, 2001). This concern for men is heightened since unmarried students typically engage in frequent sexual activity (Abrams & Abraham, 1988), have a tendency toward alcohol and drug use prior to and during sex (Desiderato & Crawford 1995), engage in sex with multiple partners (Padian, Hitchcock, Fullilove, Kohlstadt, & Brunham, 1990; Turtle, Ford, Habgood, Grant, Bekiaris, Constantinou, Macek, & Polyzoidis, 1989), and typically use condoms in an inconsistent manner (Moore & Barling, 1991; Moore & Rosenthal, 1991). As a result, improving our understanding of the etiology of sexual risk behaviors among young people has become a national priority of scientific inquiry (Annenberg Public Policy Center and National Institute of Mental Health, 1999). Researchers have attempted to understand the determinants of high risk sexual activity given the continued importance of sexual transmission between sexual partners (McCoul & Haslam, 2001).

One area in which researchers have focused has been identification of risk factors that contribute to the increased transmission of diseases. Identified risk factors for STIs and HIV/AIDS have included having multiple sexual partners, engaging in unprotected sex, or having sex with a potential "high risk" partner (Bowler, Sheon, D'Angelo, & Vermund, 1992). In an effort to define sexual risk-taking, one definition identifies the two main risk factors for contracting an STI as inconsistent or non-use of condoms and having multiple sexual partners, both over the span of one's life and over a specified period of one's life (Donovan, 1993). Others have suggested that intercourse with multiple partners, frequency of intercourse, and low rates of condom use are all behaviors that contribute to an increased risk for contracting an STI (Capaldi, Stoolmiller, Clark, & Owen, 2002). Additionally, there is some support for the notion that individuals who show early onset of sexual behavior are at higher lifetime risk for contracting an STI; evidence suggests these individuals typically engage in higher levels of sexual activity (e.g.,

higher frequency of intercourse and more sexual partners) throughout their lives (Thornton, 1990). In general, however, risk for transmission of STIs is ideally assessed by the frequency of exposure via risk-taking acts of intercourse, which includes number of partners, frequency of intercourse, and condom use behavior (Capaldi et al., 2002).

Researchers have examined how an increased frequency and quantity of sexual behavior can increase one's risk for contracting an STI or HIV/AIDS. The quantity of sexual partners one has had in his or her lifetime has been identified as an important predictor of sexual risk-related behavior and increases the likelihood of contracting an STI (Ericksen & Trocki, 1992). This is of particular concern since researchers have found that a majority of sexually active students have multiple sexual partners (Douglas et al., 1997). Another study found that risk increased considerably across adolescence as both frequency of intercourse and the number of partners per year increased (Capaldi et al., 2002). Increases in frequency of sexual behavior and number of partners were also found to correlate with lower levels of condom use, thus increasing one's potential risk for contracting an STI. The authors found, however, that decreased use of condoms rather than number of sexual partners was the most significant predictor of STI contraction (Capaldi et al., 2002). This finding supports the efforts of prevention programs that emphasize the consistent use of condoms as a key factor in STI prevention (Capaldi et al., 2002). Overall, however, the predictors examined in this study accounted for only moderate amounts of variance in the levels of sexual risk behaviors and STI transmission examined in this study (Capaldi et al., 2002). Therefore, other variables need to be considered that not only correlate with sexual risk-taking but that can be used to predict future sexual behavior and inform prevention and intervention programs.

The use of alcohol and other drugs has also been included in investigations that examine risk factors for sexual risk-taking. It has been hypothesized that the use of these substances may increase the general propensity to take risks as well as impair judgment (McCoul & Haslam, 2001). It has been found that, compared to those who did not use condoms consistently, individuals who consistently used condoms reported having fewer sexual partners and consumed alcohol less frequently while engaging in sexual behaviors (Mahoney et al., 1995). Hingson, Strunin, Berlin, and Heeren (1990) found that for adolescents who were sexually active and either consumed alcohol or used drugs, 16% used condoms less often after consuming alcohol and 25% used condoms less often after using drugs. Others have also found alcohol and drug use to be correlated with an increase in sexual risk-taking behavior (Bowler et al., 1992; Meilman, 1993). In sum, researchers have been able to demonstrate that, in addition to frequency of sexual behavior and quantity of sexual partners, the use of alcohol and drugs also does represent an additional risk factor for engaging in sexual risk-taking behavior.

An additional area of inquiry in the sexual health literature has focused on personality constructs in an attempt to identify other risk factors associated with sexual risk-taking behavior. Two of the most prominent personality constructs investigated have been sensation seeking and impulsivity. In one of the first published studies to examine sensation seeking and its relations to sexual behavior, Zuckerman, Tushup, and Finner (1976) found that in a predominantly heterosexual college student sample, sensation seekers engaged in a wider range of sexual behaviors with more partners than other people. Fifteen years later, Hernandez and Smith (1991) replicated these findings. More recently, Kalichman, Johnson, Adair, Rompa, Multhauf, and Kelly (1994) developed a measure of sensation seeking specific to the sexual domain (the Sexual Sensation Seeking Scale) using this measure with a homosexual male sample and found that it

was successful at predicting number of sexual partners and likelihood of engaging in anal intercourse without condoms. Kalichman and Rompa (1995) not only replicated these findings with another homosexual male sample but were able to replicate these results in a sample that consisted of lower income heterosexual men and women.

Measures of impulsivity have also been useful in investigations examining sexual risk-taking behavior. With in a sample of heterosexual men and women, Clift, Wilkins, and Davidson (1993) found that impulsivity was associated with a failure to use a condom and having sexual intercourse with a casual partner during the previous year. With a sample of predominantly male students, Horvath and Zuckerman (1993) obtained significant correlations of sensation seeking and impulsivity with an AIDS risk index composed of several risky sexual behaviors. Significant correlations were not found, however, when examining these constructs with a female student population (Horvath & Zuckerman, 1993).

As these and other personality factors have contributed to our understanding of sexual behavior and decision-making, so have intrapersonal factors, or constructs of the self, been valuable sources of inquiry. Understanding how the self influences sexual behavior has been the focus of many studies and represents an important advancement in the sexuality research literature. The intrapersonal literature has examined one particular aspect of the self, self-esteem, which is commonly defined as the evaluative component of the self and the part of the self that tends to relate toward one's self and others in either a positive or negative manner. Researchers have posited that the ways in which we perceive others and ourselves do have an effect on daily life and behaviors (Smith and Snell, 2001).

In a study investigating the relationship between self-esteem and sexual behavior in a sample of 227 heterosexual male college students, Cole and Slocumb (1995) found that men who

had higher levels of self-esteem reported engaging in less safer sex behavior than individuals with lower levels of self-esteem. Rosenthal, Moore, & Flynn (1991) and Walsh (1991) reported similar findings, that higher self-esteem in men was predictive of increases in sexual behavior as well as increased number of sexual partners. In another study of 353 college students, Hollar and Snizek (1996) examined the relationships among self-esteem, knowledge of HIV/AIDS, and sexual risk behavior and found that men with high levels of self-esteem were more likely to engage in risky sexual behavior. Hollar and Snizek (1996) purported that the tendency for high self-esteem men to report high levels of risky sexual behavior might be in part due to the notion that engaging in risky forms of sexual behavior serves as a status enhancer within the college environment. Overall, there is evidence to suggest that, for men, higher levels of self-esteem not only relate to increased frequency and quantity of sexual behavior in predictable ways but also that men with higher self-esteem are more likely to engage in these behaviors with more partners than men with lower self-esteem. Since self-esteem has found to be associated with sexual behaviors, it is likely that other intrapersonal variables (e.g., intrapersonal sexuality constricts) would also relate to sexual behaviors in predictable ways.

Based on the current multitude of identified risk factors associated sexual risk-taking, researchers, clinicians, and educators have attempted to improve educational and treatment programs. These efforts, however, have been found to only moderately impact the current risky sexual behavior of adolescents and young adults with almost no long-term change in sexual health patterns (Kelly, St. Lawrence, Brasfield, & Hood, 1989). Additionally, the majority of AIDS prevention programs are largely psychoeducational, focusing on increasing knowledge about STI and AIDS transmission, yet, have yielded little improvement in sexual risk-taking behavior (Boyer, Tschann, & Shafer, 1999). Therefore, additional research is required that

examines other potentially important factors that affect one's sexual behaviors and decision-making with regard to risk-taking. Since the reviewed investigations focusing on sexual risk-related behaviors provide support for the fact that many variables can be used to not only explain but predict sexual behavior with varied levels of confidence, other factors might also warrant investigation to increase our understanding of the decisions made by adolescents and young adults with regard to their sexual behavior.

Theoretical framework for understanding sexual health behavior

Researchers have developed a variety of theoretical models in an attempt to understand, explicate, and predict sexual behavior. Typically, social-cognitive factors have been included in theoretical and explicative research as they represent important proximal behavioral determinants, are amenable to change, and are most often included in health promotion intervention programs (Connor & Norman, 1996). A variety of individual level conceptual models have been developed, each including distinct social-cognitive factors and processes that are considered valuable to understand, predict, and change health-related behaviors (Wiggers, de Wit, Gras, Coutinho, and van den Hoek, 2003). More specifically, these theories are being utilized to understand HIV prevention practices and improve sexual health behavior. The following will briefly present these theories and the implications they have for this present study.

Theory of Reasoned Action and the Theory of Planned Behavior

The Theory of Reasoned Action (TRA; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) has been widely used to explain health-related behavior. According to Fishbein and Ajzen (1975), intention is a key component, and is largely based on an individual's attitudes about the behavior and the assumed norm of that specific behavior. These attitudes about the behavior that inform one's intention are based largely on both the perceived consequences of the specific behavior as well as the evaluation one makes about the consequences. The perceived norm of the behavior consists of both the believed behavioral norm and the motivation to conform to the norm. Therefore, if an individual believed that college-aged students, like him or herself, are unlikely to have an STI (perceived norm) and that using a condom diminishes the sexual experience (motivation to conform), he or she is likely to endorse a positive normative view of unprotected sex.

The theory of planned behavior (e.g., Ajzen, 1988; Conner & Sparks, 1996; Fisher & Fisher, 2000) is an extension on the theory of reasoned action, proposing that the most important determinant and predictor of behavior is an individual's intention or plan to engage in a specified behavior. This theory has also been applied to understanding and predicting a variety of health behaviors (for an overview, see Armitage and Conner, 2001), including the study of HIV preventive behaviors. Expanding on the theory of reasoned action, the theory of planned behavior adds that perceived behavioral control constitutes an additional predictor of intention. According to this theory, intention by itself can predict behavior when the individual perceives him or herself to be in control of the behavior or situation. When one lacks the perceived control over the behavior, however, factors that influence one's true control over the situation will play a greater role in determining behavior (Wiggers et al., 2003). Many researchers believe that the theory of planned behavior represents a reliable and invaluable theory of the proximal determinants of behavior. Beyond understanding these proximal determinants, factors external to the model, such as demographic characteristics, personality traits and attitudinal and other individual difference variables are assumed to exert their influence on behavior only indirectly through the components of the theory of planned behavior (Wiggers et al., 2003).

Health Belief Model

The Health Belief Model (HBM; Becker, 1974; Fisher & Fisher, 2000; Sheeran & Abraham, 1996) represents one of the earliest social-cognitive accounts of health behavior. The HBM asserts that perceived severity of consequences, perceived benefits of preventive behavior, and perceived susceptibility to consequences each impact health-related behaviors (Becker, 1974). Thus, at the core of this theory is the belief that health behaviors are determined by the person's perceived health threat. Additionally, decisions about specific health behaviors are made

in terms of perceived benefits and costs. In this case, benefits include beliefs about the efficacy of certain behaviors that will lead to a reduction of the health threat. According to this theory, therefore, a behavior is unlikely to be enacted unless it is considered effective. Benefits, however, are not the only deciding factor leading to health behaviors. The HBM also suggests that benefits must outweigh any costs or potential negative aspect of a particular health action, such as embarrassment, inconvenience, or expenses (Wiggers et al., 2003). Together, this theory proposes that individuals make behavioral decisions based on a perceived cost-benefit ratio. As the HBM has been further studied and developed over the years, additional components of the theory have been added, such as self-efficacy and motivation (Wiggers et al., 2003).

Some components of the HBM have been considered to be similar to aspects of the theory of reasoned action (TRA). Out of the three original components of the HBM (i.e., perceived severity of consequences, perceived benefits of preventive behavior, and perceived susceptibility to consequences), severity of consequences and benefits of preventive behavior relate quite closely to TRA's perceived consequences and evaluation of consequences (DeHart & Birkimer, 1997). The similarities can be illustrated by the following example: if an individual believed that impregnating his partner would be a significantly negative outcome of the sexual encounter (TRA: evaluation of consequence of unprotected sex; HBM: perceived severity) and that wearing a condom markedly reduces the likelihood of getting his partner pregnant (TRA: perceived consequences of using a condom; HBM: perceived benefits), then the individual is more likely to use a condom during intercourse than someone else with different beliefs regarding either the consequence of pregnancy or the effectiveness of contraceptive behavior. One of the unique contributions of the HBM that has informed HIV/AIDS education and prevention efforts is perceived susceptibility. During the early years of the HIV/AIDS epidemic,

many people believed that HIV was a disease that only needle injecting drug users or homosexuals contracted (perceived susceptibility), likely contributing to a reduced use of condoms by heterosexual and non-needle using populations. Based on the theory of perceived susceptibility, research and education efforts that have advanced our understanding of the transmission of HIV/AIDS should contribute to significant increases in condom use behavior over time.

According to Breakwell and Millward (1997), there are two prominent theoretical approaches to explaining sexual risk-taking. The first is the theoretical work examining personal relationship research (see Sprecher and McKinney, 1993) which consists largely of findings on sexual attitudes, beliefs, feelings and practices. This theory conceptualizes sexuality as an interpersonal or relational construct. The second and more frequently utilized theory, which is rooted in social psychological theories of attitude determination of behavior, is the theory of reasoned action (Ajzen and Fishbein, 1980). This theoretical approach explores the explanatory significance of various sexual attitudinal and belief constructs in predicting "safer" sexual practices (O'Keefe, Nesselhof-Kendall, & Baum, 1990; Fisher and Fisher, 1992). Contrary to the former theory that considers sexuality more relationally, the theory of reasoned action presumes sexuality to represent a behavioral construct. Relationships between HIV preventive behaviors and perceived susceptibility, perceived severity, and perceived benefits, however, have been largely inconsistent (Fisher & Fisher, 2000). Also, as both theories have been moderately successful in predicting intention to take sexual risks, neither theory has provided researchers with consistent predictors of actual sexual risk-taking behaviors (Breakwell, 1996). Since these and other socio-cognitive models have provided only minimal success in reliably predicting sexual behaviors and decision-making (Breakwell & Millward, 1997; Wiggers et al., 2003),

another theory that was developed to explain and predict health behavior such as sexual risk-taking and condom use behavior will be presented.

Information-Motivation-Behavioral theory (IMB)

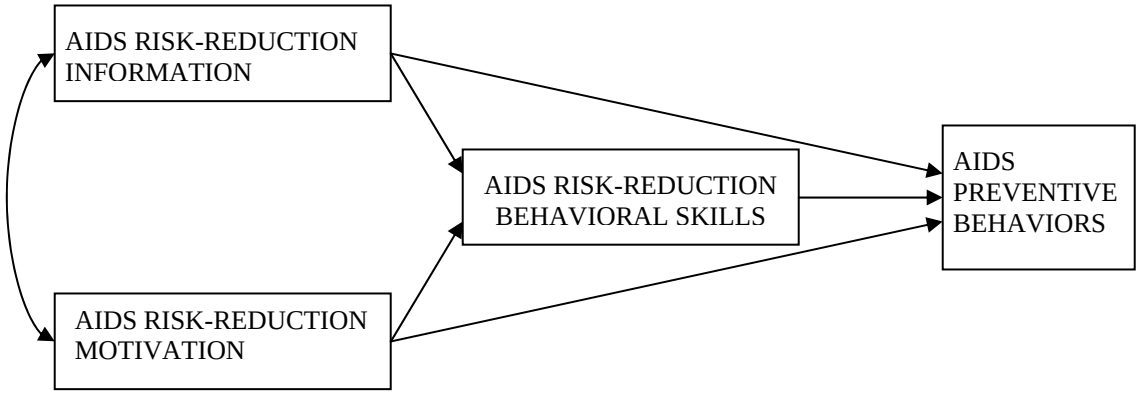
The Information-Motivation-Behavioral Skills theory (IMB) of AIDS risk-reduction was developed by Fisher and Fisher (1992) as a result of conclusions drawn from their review of a decade of elicitation and intervention studies with regard to AIDS risk-reduction. Among the many conclusions, one particular finding was that risk-reduction interventions for university students have typically consisted of providing information rather than increasing motivation or teaching specified behavioral skills (Fisher & Fisher, 1992). In their review of AIDS risk-reduction interventions from 1980 to 1990, Fisher and Fisher (1992) found that information-only interventions, despite their effectiveness in increasing knowledge about AIDS risk, actually affect behavior change minimally. Accordingly, Fisher and Fisher (1992) found that interventions that focused on information, motivation, and behavioral skills seemed to demonstrate an increased impact on reducing risk behavior (see Franzini, Sideman, Dexter, & Elder, 1990; Galavotti, Schnell, & O'Reilly, 1990; Rotheram-Borus, Koopman, Haignere, Davies, et al., 1991; Valdiserri et al., 1989). This finding led Fisher and Fisher (1992) to develop a theoretical conceptualization of AIDS risk-reduction with three distinct determinants of reduction: information, motivation, and behavioral skills.

According to Fisher and Fisher (1992), information consists of knowing the modes of AIDS transmission as well as having information about specific methods of preventing infection. Motivation has been defined by the authors as the personal attitudes toward AIDS prevention behaviors and perceived normative support for such behaviors. Thus, motivation influences whether an individual uses the knowledge regarding AIDS transmission and prevention. Fisher

and Fisher (1992) assert that knowledge and motivation represent two orthogonal constructs. As such, the IMB theory asserts that when one possess adequate levels of AIDS risk-reduction information, has positive attitudes toward preventive behavior (high motivation), and has perceptions of strong normative support for these behaviors (high motivation), they are more likely to engage in risk-reducing behavior. At the same time, one can possess adequate information regarding risk-reduction but also demonstrate low motivation (e.g., negative attitudes towards condom use) and may perceive low normative support for this behavior (e.g., condoms use suggest that you do not trust your partner), resulting in a lack of behavioral skill activation to reduce risk. Thus, according to IMB, behavioral skills represent the result of the combined effect of information and motivation and serve as the final determinant of actual behavioral change to reduce risk (Figure 1).

Figure 1.

Fisher and Fisher's (1992) Information-Motivation-Behavioral Skills (IMB) theory of AIDS preventive behaviors



The multidimensionality of the sexual self

As the previously reviewed literature suggests, many variables that include behaviors, attitudes, and personality constructs have been used to explain and predict sexual risk-taking and condom use behavior. One area of the sexual health literature that continues to be under-researched, however, concerns factors related to one's sexuality, or sexual self. Many researchers have asserted that, in addition to one's global sense of self, individuals also possess a sexual self[1] (Andersen & Cyranowski, 1994; Andersen et al., 1999; Rosenthal, Moore, & Flynn, 1991; Snell & Papini, 1989; Zeanah & Schwartz, 1996). Within one's sexual self reside multidimensional and multi-determined aspects of sexuality which individuals use to make decisions and evaluate him or herself (Zeanah & Schwartz, 1996). It is these aspects of one's sexuality, however, that researchers have yet to fully explore in an attempt to better understand the factors that might influence sexual behavior and decision-making.

As reviewed previously, behavioral, attitudinal, and personality variables represent the majority of conceptual areas of focus in the literature. Much less attention, however, has been given to intrapersonal constructs related to one's sexuality and how they relate to sexual health-related behavior. One area of the sexuality literature researchers have investigated is the way in which individuals evaluate his or her sense of sexual self emotionally and cognitively and how these self-evaluations relate to sexual behavior. The sexual self is influenced by past experiences (i.e., behaviors, thoughts, and emotions) and influences future experiences (Garcia, 1999). Several researchers have operationalized the notion of sexual self and its relationship to sexual behavior and sexual decision-making (Andersen & Cyranowski, 1994; Andersen et al., 1999; Garcia, 1999; Snell, 2001; Snell, Fisher, & Walters, 1993). Thus, the multidimensional nature of

[1] It is noteworthy that throughout the sexuality literature, the construct of sexual self has been given many labels, including sexual identity, sexuality, sexual self, and sexual self-concept.

the sexual self has led researchers to examine affective and cognitive constructs related to the sexual self in an effort to better understand sexual behavior and decision-making. Only within the past 15 years have sexuality researchers begun to examine these sexual affective components of the sexual self, including sexual esteem, sexual depression, sex anxiety, and the erotophilia (i.e., positive sexual evaluation)-erotophobia (i.e., negative sexual evaluation) spectrum of sexual affect. This research area, however, has been slow to develop as sexuality researchers have historically lacked psychometrically adequate instruments that assess areas of one's sexuality beyond the physiological or behavioral sexual experiences. The following will review the body of literature that has investigated both cognitive and affective sexual constructs and their relationships to various sexual behaviors and attitudes.

The development of sexuality measures in the study of sexual behaviors and attitudes

In one of the first investigations to investigate both affective and cognitive constructs related to one's sexuality, Snell and Papini (1989) developed the Sexuality Scale, an instrument assessing three specific, yet understudied areas of sexuality: sexual esteem, sexual depression, and sexual preoccupation. In their study, Snell and Papini defined sexual esteem as the tendency to positively evaluate one's ability to relate to others in a sexual manner. Another component of sexual affect examined in this study was sexual depression, defined as the tendency to experience feelings of sadness and discouragement about one's capacity to relate sexually to another individual. In addition to sexual affect as it relates to one's sexuality, the authors also included a cognitive measure of sexual preoccupation, defined as "the persistent tendency to become so absorbed in, obsessed with, and engrossed in sexual cognitions and behaviors, that one virtually excludes thoughts of other matters (p. 257)."

In the first phase of this investigation, a set of items were written for each subscale of the Sexuality Scale that, according to the authors, were face valid with the definitions of each of the three sexuality concepts. The authors then reduced each subscale to ten items. In addition to the face validity of the subscale content items, factor analysis yielded significant evidence for the independence of the three measures (Snell & Papini, 1989). Following this, reliability analyses were conducted on each of the newly formed subscales and subscale intercorrelations were conducted. The internal consistencies of the three subscales were computed for each gender separately and together. Internal consistency reported by Cronbach alpha coefficients suggests strong reliability for sexual esteem (.91 to .92), sexual depression (.85 to .93) and sexual preoccupation (.87 to .91). Test-retest reliability was also strong with the stability of each subscale as follows: sexual esteem (.69 to .74), sexual depression (.67 to .76) and sexual preoccupation (.70 to .76) with all p's < .001.

Snell and Papini (1989) examined responses to the Sexuality Scale to assess the influence of gender on sexual esteem, sexual depression, and sexual preoccupation with a sample of male and female university students. The authors found that for men, sexual esteem was significantly correlated in the negative direction with sexual depression (r = -.70, p < .001). This finding combined with the face validity of each construct might suggest that sexual esteem and sexual depression, rather than representing two orthogonal constructs, be best considered as two endpoints of one construct continuum. The authors also found that, among men, sexual preoccupation was positively correlated with sexual depression. For women, however, sexual preoccupation was positively correlated with sexual esteem. When comparing gender differences, results revealed that there were no gender differences on the measures of sexual esteem and sexual depression; men did, however, report higher levels of sexual preoccupation

than did women. This finding is consistent with the belief that men attend to and think about sex and sexuality more than women do (Snell, 1998).

Snell, Fisher, and Schuh (1992) replicated many of the findings in Snell and Papini's (1989) study with regard to psychometric properties of the Sexuality Scale during their investigation of relationship between the Sexuality Scale and several areas of sexuality and relationships, including sexual attitudes and communication patterns in sexual relationships. Through factor analysis, the researchers confirmed that the items on the Sexuality Scale formed three distinct conceptual clusters (i.e., sexual esteem, sexual depression, and sexual preoccupation) and also found that all three subscales had adequate levels of reliability. Snell et al. (1992) also found evidence for discriminant validity for the Sexuality Scale by demonstrating that each of the three subscales was unrelated to other constructs for both genders, such as measures of self-monitoring, locus of control, and instrumental and expressive personality characteristics. Finally, the authors also demonstrated convergent validity for each of the three subscales by demonstrating a series of negative and positive correlations with measures of sex guilt, sex anxiety, chronic depression, sexual assertiveness, and sexual awareness (Snell et al., 1992).

In addition to finding evidence to support the psychometric properties of the Sexuality Scale, Snell et al.'s (1992) investigation yielded several important findings with regard to the Sexuality Scale and its relationship to a variety of relational, personality, and sexuality constructs. First, the researchers found that for both genders, sexual esteem and sexual preoccupation were more associated with a positive (erotophilic) than a negative (erotophobic) orientation towards sex. The latter finding is in contrast with Snell and Papini's (1989) investigation that found that, in men, sexual preoccupation positively correlated with sexual

depression. Snell et al. found that sexual preoccupation was positively correlated with measures of sexual monitoring and sexual assertiveness for both men and women. Additionally, the researchers found that for both genders, sexual depression was positively correlated with heterosexual anxiety and clinical depression. The authors also found that sexual depression was associated with greater anxiety and depression as well as less self-esteem and sexual assertiveness. With regard to relational and sexual attitudes, the researchers found that men with greater sexual esteem identified with attitudes related to sharing-involvement as opposed to a manipulative self-centered view of sex. In contrast, the researchers found that sexually depressed men held more of a manipulative self-centered view of sex. Overall, the work by Snell and Papini (1989) and by Snell et al. (1992) provides strong evidence for the reliability and validity of the subscales of sexual esteem, sexual depression, and sexual preoccupation in the Sexuality Scale. These studies also provide support for the notion that affective and cognitive sexual self constructs can be used to better understand and predict sexual attitudes and behaviors.

In one of the first studies to develop an instrument to assess multi-faceted components of the sexual self, Snell et al. (1993) investigated the multidimensional nature of sexual self-concept by developing the Multidimensional Sexuality Questionnaire (MSQ), a self-report instrument designed to measure 12 aspects of the sexual self-concept. The MSQ combines measures of previously developed sexuality instruments (e.g., the Sexuality Scale; Snell & Papini, 1989, and the Sexual Awareness Scale; Snell, Fisher, & Miller, 1991) as well as several other subscales to assess other aspects of the sexual self (e.g., personal sexual control, powerful-other sexual control, chance/luck sexual control). Reliability analyses and factor analysis confirmed the adequacy of the psychometric properties of the Multidimensional Sexuality Questionnaire (MSQ). Overall, this study found evidence indicating that men's and women's scores on the

MSQ were associated with their sexual behaviors, attitudes, and approaches to their sexual relations. This study represents one of the first attempts to understand multiple aspects of one's sexual self and how they might relate to past, present, and future sexual behavior and decision-making.

The MSQ represents research efforts attempting to develop more global and general measures of sexuality. A more specific construct in the sexuality literature that has also received attention is sexual self-schema. Andersen and Cyranowski (1994) were among the first researchers to introduce the concept of sexual self-schema as a component of a woman's self-view of her sexuality. According to Andersen and Cyranowski, sexual self-schema were operationalized as "cognitive generalizations about sexual aspects of oneself that are derived from past experience, are manifest in current experience, are influential in the processing of sexually relevant social information, and guide sexual behavior" (p. 646). They developed and employed the Sexual Self-Schema Scale as they examined the relationship between this measure and sexual problems experienced by women following cancer treatment. This study found that the sexual self-schema was useful in predicting risk for sexual side effects in female cancer treatment patients. Specifically, the findings revealed that those with a distinct positive sexual self-view (schematic) gave positive evaluations of sexual behaviors, anticipated having more active and satisfying sexual lives, reported high levels of sexual arousal, and reported low levels of sexual anxiety. This study provided preliminary support for future research that employs measures of sexual self-schema to better understand sexual behaviors and attitudes.

In an effort to expound upon Andersen and Cyranowski's (1994) findings, Andersen et al. (1999) adapted the Sexual Self-Schema Scale to be used with a male population. The authors successfully developed a psychometrically sound indicator of cognitive aspects of men's

sexuality (Andersen et al., 1999). Additionally, the authors investigated whether sexual schema might be informed from past experiences, suggesting that in relation to aschematic men, schematic men would report a wider range of sexual behaviors, higher number of sexual partners, and a greater incidence of short-term (i.e., "one night stands") sexual experiences. The authors found significant support for these hypotheses. The authors also believed that sexual self-schema would relate to romantic involvement, where schematic men would have a more positive view of their sexuality, leading to increased involvement in romantic relationships. To evaluate this, the authors examined the participants' romantic histories and romantic feelings and found significant differences where aschematic men reported falling in love less frequently when compared to schematic men. Overall, these results suggest that men with a positive (schematic) view of their sexuality not only engage in more sexual behavior with greater numbers of partners, but are also more likely to become romantically involved and experience feelings of intimacy and love relative to aschematic men. These findings also suggest that schematic men are likely engaging in increased sexual activities without commitment (Andersen et al., 1999). Additionally, these results suggest that the sexual self-schema represents a cognitive generalization about one's sexual self and that these schema are influenced by past experience, emerge in current experiences, and are associated with the processing of sexually relevant social information that informs our sexual behavior (Andersen et al., 1999). Therefore, as an assessment tool, the Sexual Self-Schema Scale serves as an invaluable instrument that can be used in the evaluation and prediction of men's sexual behaviors and attitudes.

Researchers have also developed and investigated the erotophobia-erotophilia continuum in an attempt to understand the way individuals evaluate their sexuality and sexual experiences. Generally, erotophobic people have been defined as those who have negative feelings about sex

whereas erotophilic individuals are those who have positive feelings about sex (Snell et al., 1993). Fisher, Byrne, White, & Kelly (1988) found that those who were identified as erotophobic reported less heterosexual intercourse and less masturbatory behavior. In another study investigating positive and negative affectivity one holds regarding their own sexuality and sexual behavior, Garcia and Carrigan (1998) found that for both men and women, those who endorsed a more positive affective orientation towards sexuality (erotophilic) reported a higher quantity of sexual encounters and were more likely to rate themselves as more sexual. Consistent with these findings, Garcia (1999) found that those with greater quantities of sexual encounters rated themselves higher on all six self-rating scales. Garcia (1999) also found that participants with higher negative affective orientation (erotophobic) to their sexuality tended to rate themselves lower on five of the six sexual self-rating scales and also reported feeling less certain about their sexual self-ratings. In summary, there does seem to be a relationship between one's sexual behavior and one's sexual self-assessment in that individuals who report increased amounts of sexual experiences also report more positive evaluations of his or her sexuality (erotophilic) with more certainty than do individuals who identify as erotophobic. The role of this construct as it influences sexual health behavior such as sexual risk-taking remains unknown and warrants examination.

Sexuality and condom use behavior

The focus of this study is to gain an increased understanding of the factors that might contribute to young adult men engaging in risky sexual behavior. For men, one aspect of risky sexual behavior is the frequency and consistency with which one engages in condom use behavior. As researchers have investigated these condom use behaviors in the past, one area of the literature that has received minimal attention is the role of intrapersonal sexuality constructs

related to one's sexual self, and how they relate to and predict sexual risk-taking. An increased understanding of the influence one's sexuality has on sexual behavior and sexual decision-making will likely improve researchers' abilities to identify factors that contribute to someone being a reliable condom user and ultimately increase safer sexual behavioral practices.

In one of only a few investigations examining the way in which sexuality constructs relate to condom use behavior, Smith and Snell (2001) investigated the relationship among sexual esteem, sexual depression, and sexual preoccupation to condom use behavior with a sample of 57 undergraduate students. The authors conducted the study based on the premise that investigating personal attitudes related sexual behavior will likely contribute toward a more effective theory of condom use behavior. As hypothesized, results suggested that for both genders, sexual esteem accounted for more reliable condom use whereas sexual depression accounted for less reliable condom use. Additionally, sexual esteem positively correlated with condom use behavior ($r = .25$, $p < .05$) for the total sample whereas sexual depression was significant and negatively correlated with condom use behavior ($r = -.33$, $p < .01$) for the combined sample. The implications of the latter finding are unclear since male sexual depression accounted for most of the combined sexual depression score, possibly suggesting that men endorse more negative or depressed feelings about their sexuality than do women. In an attempt to identify additional gender differences, separate analyses for men and women were also conducted. Smith and Snell found, however, that the relationship between condom use and sexual esteem was not statistically significant for either gender. In contrast, the relationship between condom use and sexual depression was statistically significant for men ($r = -.45$, $p < .01$) but not for women. Overall, these findings support the notion that sexual esteem and sexual depression do play a role in determining condom use behavior in both men and women. Based

on the small sample size, particularly regarding gender, and the paucity of other similar studies, this study and its findings might be considered preliminary data warranting future research in the area of sexual health and sexuality.

In another attempt to develop a comprehensive sexuality instrument that can be used to investigate sexual behavior and condom use behavior, Snell (2001) investigated the relationship between sexuality factors on his Multidimensional Sexual Self-Concept Questionnaire (MCCSQ), condom use behavior and sexual attitudes based on a sample of 504 male and female students from a Midwestern university. Based largely on the research conducted by Snell and Papini (1989), Snell et al. (1991), Snell et al. (1993), and Andersen and Cyranowski (1994), the MSSCQ is an objective self-report instrument designed to measure the 20 sub-components of the sexual self-concept, which comprise three main areas of one's sexual self, the cognitive, affective, and motivational domains (Snell, 2001). Snell demonstrated adequate internal consistency of the 20 subscales on the MSSCQ in calculating Cronbach alpha coefficients. Based on 5 items per subscale, the alphas on each of the subscales ranged from .72 to .94 for all participants, from .63 to .93 for women, and from .66 to .93 for men.

Examining the relationship between the MSSCQ and condom use behavior, Snell (2001) conducted correlational analyses separately for men and women, using the 20 MSSCQ subscales as one group of variables and the 10 condom use questions as the other group of variables. For the male sample, more regular condom use behavior (e.g., use of condoms during first sexual intercourse, greater use of condoms or spermicide for the purpose of AIDS protection, and fewer incidences of non-condom use behavior while remaining sexual active) was reported by those who possessed a more well-defined sexual self-schema and who described themselves as being more motivated to avoid risky sex. Results suggest that for women, more regular condom use

behavior (e.g., using condoms often in their current sexual experiences and having used condoms during their most recent sexual encounter) was reported by those endorsing less sexual anxiety, less sexual depression, and greater sexual satisfaction. Overall, these findings suggest that the affective, cognitive, and motivational subscales on the MSSCQ can be used in a reliable manner to predict the relationships among sexuality constructs, sexual risk-taking, and condom use behavior.

It is possible that core aspects of the self, such as sexual self-schema (Andersen & Cyranowski, 1994) and sexual esteem (Snell & Papini, 1989) are likely to influence behavior, such as sexual risk-taking behavior (Breakwell & Millward, 1997). Another possibility is that, given the right context, components of one's sexual self might interact with stable personality characteristics (e.g., identified in previous research such as sensation seeking or impulsiveness) to increase the likelihood of engaging in risky sexual behavior. In conclusion, the reviewed literature represents a significant body of work investigating the relationships among measures of sexuality, sexual behavior, and condom use behavior, and provides preliminary support for relationships among these constructs.

The present study

The primary goal of the present study was to investigate the role of cognitive and affective components of one's sexuality on sexual risk-taking with the purpose of informing future research efforts and prevention strategies. These two constructs of interest, sexual self-schema and sexual esteem, seem to represent influential factors with regard to sexual behaviors, attitudes, and decision-making but have received only minimal attention in the sexual health literature. To address this gap in the literature, this study utilized sexual self-schema and sexual esteem as the two primary variables to identify male individuals who 1) are at elevated risk of STI and HIV/AIDS transmission and 2) are more likely to engage in reliable condom use behavior.

A variety of health behavioral models have been proposed to explain ways in which individuals make health-related decisions and engage in health-related behaviors. This study tested one particular theory, the Information-Motivation-Behavioral theory (IMB) developed by Fisher and Fisher (1992), in an attempt to identify factors that relate to and predict specified health-related behaviors. More specifically, this study attempted to demonstrate that men's sexual self-schema and sexual esteem impact the relationship among the predictor variables (i.e., information, motivation, behavioral skills) with the criterion variable (i.e., AIDS preventive behaviors) of the Information-Motivation-Behavioral theory. In doing so, these findings identified a subset of at-risk men who are less likely to engage in AIDS preventive behaviors as proposed by the Information-Motivation-Behavioral theory.

Additionally, Fisher and Fisher (1992) have asserted that AIDS risk-reducing motivation constitutes a substantial innovation to health behavioral theories. To demonstrate the invaluable contribution motivation represents, this study also tested the assertion that motivation moderates

the relationship between AIDS risk-reducing information and AIDS preventive behaviors delineated in the IMB theory. Therefore, it was the intention of this study to demonstrate that 1) the IMB is useful in identifying certain sub-populations that do not engage in AIDS risk-reducing behavior and 2) that AIDS risk-reducing motivation is more useful as a predictor of AIDS preventive behaviors than AIDS risk-reducing information.

Hypotheses

1. Sexual self-schema, measured by Andersen et al.'s (1999) Sexual Self-Schema Scale, and sexual esteem, measured by Snell and Papini's (1989) Sexuality Scale, will correlate positively with several areas of sexual risk-taking. Consistent with previous investigations (e.g., Bowler et al., 1992; Capaldi et al., 2002; Desiderato & Crawford, 1995), sexual risk-taking is being defined by a combination of factors, including frequency of condom use behavior, frequency of intercourse (i.e., vaginal, oral, and/or anal) with casual partners, number of sexual partners, and frequency of use of alcohol or other drugs prior to or during sexual encounters.
2. Sexual self-schema and sexual esteem will significantly predict measures of sexual risk-taking.
3. To evaluate Fisher and Fisher's (1992) Information-Motivation-Behavioral Skills (IMB) theory and replicate their findings as it relates to AIDS preventive behavior, it is hypothesized that information (measured by the *AIDS Risk Knowledge Test)* and motivation (measured by the *Sexual Risks Scale)* will not relate to each but both variables predict AIDS risk-reducing behavioral skills (measured by the *Condom Use Self-Efficacy Scale).* Additionally, it is hypothesized that AIDS risk-reducing motivation and behavioral skills will predict AIDS preventive behaviors (measured by the *Sexual Communication Measures* as

well as questions assessing condom use behavior included within the *Sexual experiences questionnaire*).

4. Examining Fisher and Fisher's (1992) IMB model, sexual self-schema and sexual esteem will moderate the relationship between behavioral skills with the criterion variable AIDS preventive behaviors. It is predicted that more positive sexual self-schema and sexual esteem will weaken the relationship among the predictor variable with the criterion variable of the IMB theory.
5. Examining Fisher and Fisher's (1992) IMB model, it is predicted that AIDS risk-reducing motivation will moderate the relationship between AIDS risk-reducing behavioral skills and AIDS preventive behaviors.

Method

Procedure

Participants were drawn from a sample of male undergraduates in the Research Participant Pool in the University of Georgia Psychology Department. All participants received course credit for participating. After individuals made an appointment to participate in the experiment via the UGA Psychology Department's Experimetrix website, the primary investigator (P.I.) provided each participant instructions on the Experimetrix website. This directed them to log onto the website designed by the P.I. where they individually completed the consent form, survey, and debriefing form process. Participants had 48 hours following registering for this study on the Experimetrix website to complete the survey. The survey took between 30 minutes to one hour depending on the participants' responses. The website that supports the survey (www.surveymonkey.com) insures complete confidentiality and provides access to the data only to the designer of the survey (i.e., the P.I.) and those employed by SurveyMonkey.com who provided technical support. Following the consent form, the first question of the survey asked for the participant's University Identification Card number as well as his initials as they appear on the Experimetrix website so the experimenter could give credit to each participant. Following this, each participant completed the survey within 48 hours. Once complete, the data from the survey was exported and loaded into an SPSS database, at which time the participant's University Identification Card number as well as his initials were be deleted to maintain confidentiality.

Participants were asked to respond to a battery of questionnaires that included (1) a demographic questionnaire that assesses several demographic variables (e.g., age, year in school, religion, race/ethnicity); (2) a sexual experiences survey developed by the researcher to assess

both sexual experiences and exposure to sexual education (e.g., age of first intercourse, number of partners, frequency of sexual intercourse, experience with sex education, etc.) as well as the Derogatis Sexual Functioning Inventory-Experience subtest (II) (Derogatis & Melisaratos, 1979); (3) *Sexual Self-Schema* (SSS; Andersen et al., 1999); (4) *AIDS Risk Knowledge Test* (ARKT; Kelly, Otto-Salaj, Sikkema, Pinkerton, & Bloom, 1998); (5) *Sexual Risks Scale* (SRS; DeHart & Birkimer, 2001); (6) *Sexuality Scale* (SS; Snell & Papini, 1989); (7) *Condom Use Self-Efficacy Scale* (CUSES; Brafford & Beck, 1991); (8) *Sexual Communication Measures* (Catania, Kegeles, & Coates, 1988); (9) *Marlowe-Crowne Social Desirability Scale* (MCSDS; Crowne & Marlowe, 1960); (10) *Sexual Sensation Seeking* (SSS; Kalichman & Rompa, 1995). Upon completion of the survey, each participant read a debriefing statement which prompted the participant to finalize the survey.

Materials

Demographic questionnaire. Developed by the researcher, areas of inquiry included items concerning personal demographic data such as age, year in school, religion, race/ethnicity, sexual orientation (sexual orientation will be assessed by respondents reporting their level of "sexual attraction" to the same and opposite sex on a scale from 0 to 100 for each attraction level (i.e., same and opposite sex) and is represented as a ratio (attraction to the same sex/attraction to the opposite sex).

Sexual experiences questionnaire. Developed by the researcher, this questionnaire asked the following questions: (1) "At what age did you first engage in sexual intercourse (vaginal, oral, or anal)?" (This question was taken from the Drive subscale of the Derogatis Sexual Functioning Inventory (DSFI; Derogatis & Melisaratos, 1979) with two-week test-retest reliability for this scale at .77) ; (2) "How many individuals have you had intercourse (vaginal,

oral, or anal) with before beginning college?"; (3) "How many individuals have you had intercourse (vaginal, oral, or anal) with since beginning college?"; (4) "In your lifetime, how many individuals have you had intercourse (vaginal, oral, or anal) with?"; (5) "In the last two months, how many individuals have you had intercourse (vaginal, oral, or anal) with?"; (6) "When was the last time you had intercourse (last week (1), last month (2), last 6 months (3), last 12 months (4), last 5 years (5))?"; (7) "Are you currently in a monogamous dating relationship (if so, length of relationship)?"; (8) "If so, are you currently in a relationship in which you have engaged in intercourse (vaginal, oral, or anal) with this partner?"; (9) How long did you know this partner prior to having sexual intercourse with him/her?"; (10) When having vaginal or anal intercourse with your current partner, do you ever use a condom?"; (11) Based on the last fives times you have has intercourse with any partner, how many times did you or your partner use a condom" (0 times, 1 time, 2 times, 3 times, 4 times, 5 times , I have not had sex more than 4 times);(12) "Have you ever used a condom?"; (13) "When having vaginal intercourse, do you always use a condom?"; (14) "Have you ever been diagnosed with an STD?"; (15) "Have you ever been treated for an STD?"; (16) "Have you ever received sex education in middle or high school (yes/no)?".

Derogatis Sexual Functioning Inventory-Experience subtest (II) (DSFI; Derogatis & Melisaratos, 1979). The Experience subtest assesses whether one has engaged in any of 24 listed sexual experiences. For the purposes of this study, this instrument was used to assess both the kind of sexual behaviors one engages in and the gender of the other individual sharing the sexual experience. Though some of the behaviors are clear as to the gender of the other person (i.e. "male lying prone on female," and "intercourse-vaginal entry from rear"), there is some ambiguity as to the gender of the other person in other questions ("having your genitals orally

stimulated," "kissing on the lips"). Therefore, gender of the other person was added to each ambiguous question to assess whether the male participant engaged in sexual behavior with other men, women, or both genders. Reliability of this subtest has been demonstrated by a Cronbach's alpha of .97. Test-retest reliability of $\underline{r} = .92$ has also been reported (Derogatis & Melisaratos, 1979).

Sexual Self-Schema-Male version (SSS; Andersen et al., 1999). This male-normed instrument is a multidimensional measure of sexual cognition or sexual self-views. This instrument asks respondents to indicate their degree of agreement with each of the 27 trait 45 adjectives (e.g., conservative, loving, sensual) and 18 filler adjectives (e.g., humorous, stingy, lazy) using a Likert scale ranging from 0 (not at all descriptive of me) to 6 ("very much descriptive of me). An overall score is generated by summing dimensional categories, with higher scores indicating the positive sexual self-schema. Cronbach's alpha values for each factor were the following: full scale, .86; factor 1, .89; factor 2, .78; factor 3, .65 (N = 667). For a 9-week interval, the test-retest reliability was .81 ($p = .0001$), reflecting the stability of the individual differences measured by this instrument.

AIDS Risk Knowledge Test (ARKT; Kelly, Otto-Salaj, Sikkema, Pinkerton, & Bloom, 1998). This instrument asks respondents 40 true/false items assessing high-risk sexual and drug practices, steps for risk reduction, and knowledge regarding HIV/AIDS (e.g., "A person must have many different sexual partners to be at risk for AIDS," "Persons who are exclusively heterosexual are not at risk for AIDS"). A single total score ranging from 0 to 40 reflects the sum of items answered correctly. The split-half reliability was 73 and the temporal stability was .84.

Sexual Risks Scale (Dehart & Birkimer, 2001). This instrument assesses several areas regarding safer sexual activity, including attitudes about safer sex, normative beliefs, and

intentions to try to practice safer sex. This instrument asked respondents to indicate their degree of agreement with each of the 38 statements using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) (e.g., “Condoms ruin the natural sex act,” “I would try to use a condom when I had sex”). A single total score ranging from 38 to 190 reflects the sum of items. Higher scores represent more positive attitudes toward safer sex, greater norm toward safer sex, and greater intention to try to practice safer sex. The internal consistency coefficient was .88, .83, and .80 for attitudinal, normative, and intentional factors, respectively. The internal consistency of the entire instrument is .86.

Sexuality Scale (SS; Snell & Papini, 1989). This instrument asks respondents to indicate their degree of agreement with each of the 30 statements using a Likert scale ranging from -2 (disagree) to +2 (agree) (e.g., “I am a good sexual partner,” “I think about sex all the time,” “I am depressed about the sexual aspects of my life”). Scores are generated for each of the three dimensions (i.e., sexual esteem, sexual depression, and sexual preoccupation) by summing across items, with higher scores indicating greater sexual esteem, sexual depression, and sexual preoccupation. For both genders combined, the internal consistency coefficient was .92, .90, and .88 for sexual esteem, sexual depression, and sexual preoccupation, respectively.

Condom Use Self-Efficacy Scale (CUSES; Brafford & Beck, 1991). This is a 28-item scale that assesses an individual's perception of his or her ability to use condoms by using a Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree) (e.g., “I feel confident in my ability to use a condom correctly”) with scores ranging from 28 to 140. Higher scores suggest lower rates of condom self-efficacy. The internal consistency coefficient was .92.

Sexual Communication Measures (Catania, Kegeles, & Coates, 1988). Three types of sexual communication are measured by this instrument: general sexual communication (6 items),

willingness to ask primary sexual partners to use a condom (1 item), and the ability to discuss sexual histories and condom use with prospective sexual partners (3 items). This instrument asks respondents to indicate their degree of agreement with each of the 10 questions (e.g., “I find that some sexual matters are too upsetting to talk about with my main sex partner,” and “I always ask a new partner how many sexual partners she/he has had”).

Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960). This instrument contains 33 items designed to assess social desirability. The items reflect behaviors, traits, and personal attitudes that are culturally accepted but are unlikely to occur. Using a true/false format, respondents indicate whether each statement is true or false as it pertains to them. Socially desirable responses are summed, yielding a possible range of scores from 0 to 33, with high scores indicating greater social desirability. Crowne and Marlowe originally demonstrated adequate psychometrics for their instrument. Recent efforts have yielded an internal consistency coefficient of .90 (Renaud & Byers, 2001).

Sexual Sensation Seeking (SSS; Kalichman & Rompa, 1995). This instrument asks respondents to indicate their degree of agreement with each of the seven statements using a Likert scale ranging from 1 (not at all) to 4 (very much like me) (e.g., “I am interested in trying out new sexual experiences”). An overall score is generated by summing across items, with higher scores indicating relatively greater tendencies toward seeking out new and varied sexual experiences and taking sexual risks. The internal consistency coefficient was .82.

Data Analyses

An a priori power analysis was conducted using G*Power (Faul & Erdfelder, 1992). Based on each of the hypotheses and medium effect size, the most conservative estimate of participants to yield significant power requires an $\underline{N}$ of 210.

One purpose of this study was to investigate intrapersonal sexuality variables, reported on by university men, to determine their relationship with certain sexual behaviors. Only females and males under the age of 18 were excluded from the recruitment of participation. At the stage of data analysis, a priori data analyses included only those participants who reported ever engaging in sexual intercourse assessed by question #9 in the study, "At what age did you engage in your first sexual intercourse?" Thus, excluded from analyses were participants considered virgins (i.e., those who answered "I have never had sexual intercourse" to question # 9 in this study) since they were assumed to comprise a different population due to their abstinent behavior, having already put themselves at minimal risk for contracting sexually transmitted infections from sexual behaviors.

In this study, analyses included examination of the relationship among intrapersonal sexuality variables with measures of sexual risk-taking. Consistent with previous investigations (e.g., Bowler et al., 1992; Capaldi et al., 2002; Desiderato & Crawford, 1995), sexual risk-taking was operationalized by a combination of factors, including frequency of condom use behavior, frequency of intercourse (i.e., vaginal, oral, and/or anal) with casual partners, number of total sexual partners, and frequency of use of alcohol or other drugs prior to or during sexual encounters, all of which are being assessed by the sexual experiences questionnaire developed by the investigator.

To evaluate the first hypothesis (*sexual self-schema and sexual esteem will correlate positively with measures of sexual risk-taking*), a series of zero-order correlations were conducted. To evaluate hypothesis 2 (*sexual self-schema and sexual esteem will significantly predict sexual risk-taking*), multiple regression analyses were used to demonstrate the predictive

validity sexual self-schema and sexual esteem possess in relation to measures of sexual risk-taking.

Hypotheses three, four, and five evaluate Fisher and Fisher's (1992) Information-Motivation-Behavioral skills model of AIDS risk behavior. For these analyses, AIDS risk-reducing information was operationalized as a combination of two areas of knowledge, AIDS transmission and AIDS prevention (Fisher & Fisher, 1992). AIDS risk-reducing motivation was operationalized as a combination of three areas, attitudes toward AIDS prevention, perceived social norms about prevention, and one's perceived vulnerability or susceptibility to contract AIDS (Fisher & Fisher, 1992). AIDS risk-reducing behavioral skills were defined by one's sense of self-efficacy with regard to condom use (Fisher et al., 1996). Finally, AIDS preventive behavior, the outcome construct of the IMB model, is being operationalized by two separate behavioral constructs: one's tendency to engage in safe sex communication and the frequency with which one uses a condom during sexual intercourse. This operationalization is consistent with that outlined by Fisher and Fisher (1992) and Fisher et al. (1996) who developed and tested the IMB model of AIDS risk behavior.

To evaluate Fisher and Fisher's IMB model as it relates to AIDS preventive behavior, hypothesis three (*information and motivation will not relate to each but both variables will correlate positively with AIDS risk-reducing behavioral skills* and *motivation and behavioral skills will correlate positively with AIDS preventive behaviors*) was tested with zero-order correlations as well as multiple regression.

To evaluate the fourth hypothesis (*sexual self-schema and sexual esteem will moderate the relationship between the behavioral skills and AIDS preventive behaviors*), the moderating effects of sexual self-schema and sexual esteem were tested. It was predicted that high sexual

self-schema and sexual esteem will weaken the relationship among the predictor variable with the criterion variable. As both predictor and criterion variable were operationalized continuously, the method of analysis will consist of regressing the dependent variable on the predictor variables, the moderating variable, and the interaction of the predictor and moderating variable. Moderator effects were indicated by a significant interaction between the predictor and moderating variable when each variable was independently held constant (Baron & Kenny, 1986).

Finally, it has been asserted by Fisher and Fisher (1992) that risk-reducing motivation represents a valuable and under-incorporated component to health behavioral models of sexual risk-taking. Another goal of this study was to demonstrate that despite one's level of behavioral skills, without adequate motivation, an individual is much less likely to engage AIDS preventive behavior. To evaluate the final hypothesis (*AIDS risk-reducing motivation will moderate the relationship between AIDS risk-reducing behavioral skills and AIDS preventive behaviors*), the method of analysis consisted of regressing the dependent variable on the predictor variables, the moderating variable, and the interaction of the predictor and moderating variable as both predictor and criterion variables were operationalized continuously. Moderator effects were indicated by a significant interaction between the predictor and moderating variable when each variable was independently held constant (Baron & Kenny, 1986).

Participants

Six hundred sixty-one undergraduate males registered to participate in this study. After reading the electronic consent form, 12 males chose to discontinue their participation in this study. No demographic data exist on these 12 males who voluntarily withdrew their participation due to the fact that no demographic data was collected prior to consent. Out of the remaining 649

males who did consent to continue with the study, 465 reported having at least 1 sexual intercourse experience; subsequently, they comprise the sample of participants the following analyses are based upon. The 465 males who all attend a major Southeastern University participated in this study and ranged in age from 18 to 34 (M = 19.49, SD = 1.47). The majority of participants were Caucasian (89.2%), heterosexual (95%), not in a steady relationship (62.6%), and in their first or second year of college (68.4%). Religious identification varied (see Table 1 for a summary of demographic variables).

Results from the Sexual Experiences Questionnaire are presented in Table 2. The majority of participants reported having sexual intercourse for the first time between the ages of 16 to18 (68.7%) and having 1 to 3 lifetime sexual partners (55.2 %). More participants reported having sexual intercourse most recently within the past week (39.4%) than any other most recent time period. With regard to condom use behavior, a majority of participants reported that they either never used a condom (30.3%) during their last five sexual intercourse experiences or always used a condom (31.4%). A majority of participants (53.8%) reported never engaging in sexual intercourse with casual partners or having “one night stands” as well as never using alcohol or drugs during sexual intercourse (54.6%). Approximately 13% of participants reported ever being tested for HIV/AIDS. Few participants reported ever being diagnosed (1.3%) or treated (2.2%) for sexual transmitted infections other than HIV/AIDS. These percentages are notably lower than averages cited in other large university studies (e.g., Caron et al., 1993; Desiderato & Crawford, 1995) where estimates of STI diagnosis and treatment have ranged from 8% to almost 30%. Finally, participants indicated friends (35.9%), more so than any other group/organization (e.g., family, school, media, past sexual relationships), were the most influential in the way the participants now think about sex.

Results

Sexual risk-taking behavior and intrapersonal sexuality factors

One focus of this study was to examine the relationship between indicators of sexual risk-taking behavior and intrapersonal sexuality constructs.

Hypothesis #1

A series of zero-order correlations were conducted to elucidate these relationships and test the hypothesis that sexual risk-taking behavior is positively associated with measures of sexual self-schema and sexual esteem. Presented in Table 3, analyses yield significant relationships between sexual esteem and several measures of sexual risk-taking, such as number of sexual partners one has before college (r = .17, p = .00), number of sexual partners one has while in college (r = .19, p = .00), number of lifetime sexual partners (r = .21, p = .00), number of sexual partners in last 2 months (r = .14, p = .00), and number of casual partners & "one night stands" one has had over the past year (r = .08, p = .05). Significance was not found for the other indicators of sexual risk-taking, such as frequency of condom behavior and frequency of alcohol and drug use before or during sexual intercourse. For sexual self-schema, results yielded significance only in the relationship with frequency of alcohol and drug use before sexual intercourse (r = -.15, p = .00) but in the opposite direction as hypothesized.

Hypothesis #2

To further examine the relationship between sexual self-schema, sexual esteem, and sexual risk-taking behaviors, a series of multiple regressions were conducted to test the incremental contribution of each predictor variable (i.e., sexual self-schema and sexual esteem) to the prediction of the criterion variables (i.e., sexual risk-taking behaviors). Specifically, each measure of sexual risk-taking behavior was regressed simultaneously on the two predictor

variables, sexual self-schema and sexual esteem. The results are summarized in Table 4. For number of sexual partners one has had prior to beginning college, the standardized regression coefficient associated with sexual self-schema was not statistically significant (β= .01, t(398) = .43, p = .66); the standardized regression coefficient associated with sexual esteem, however, was statistically significant (β= .06, t(398) = 3.56, p = .00). For number of sexual partners while in college, the standardized regression coefficient associated with sexual self-schema was not statistically significant (β= .00, t(401) = -.32, p = .75); the standardized regression coefficient associated with sexual esteem, however, was statistically significant (β= .06, t(401) = 3.59, p = .00). For lifetime number of sexual partners, the standardized regression coefficient associated with sexual self-schema was not statistically significant (β= .00, t(399) = .04, p = .97); the standardized regression coefficient associated with sexual esteem, however, was statistically significant (β= .11, t(399) = 4.09, p = .00). For number of sexual partners in the past two months, the standardized regression coefficient associated with sexual self-schema was not statistically significant (β= .00, t(405) = .09, p = .93); the standardized regression coefficient associated with sexual esteem, however, was statistically significant (β= .02, t(405) = 2.70, p = .01). For alcohol and drug use before sexual intercourse, the standardized regression coefficient associated with sexual self-schema was statistically significant (β= -.01, t(409) = -.06, p = .00); the standardized regression coefficient associated with sexual esteem, however, was not statistically significant (β= .00, t(409) = .54, p = .59). Finally, for frequency of condom behavior during the last five sexual encounters, frequency of casual sex/one night stands, and alcohol and drug use during sexual intercourse, neither regression coefficient for sexual self-schema nor sexual schema was significant.

AIDS preventive behavior and the IMB Model

A second focus of this study was to examine the utility of the IMB model that explicates AIDS preventive behaviors. Consistent with Fisher and Fisher's (1992) operationalization, AIDS preventive behaviors consisted of two distinct measures, one's tendency to engage in safe sex communication and the frequency with which one uses a condom during sexual intercourse. To determine IMB's utility as it relates to each of these AIDS preventive behaviors, analyses in hypotheses three, four, and five evaluated the IMB model twice, once for each AIDS preventive behavior. The relationships among each component of the IMB model can be seen in the bivariate correlation matrix in Table 5. Two levels of analysis were conducted to test the IMB model. First, this study attempted to replicate Fisher and Fisher's (1992) results that can be seen in Figure 2a. Second, analyses were conducted to determine whether the previously identified relationships between AIDS risk-reducing behavioral skills and AIDS preventive behaviors within the IMB model are moderated by hypothesized variables sexual self-schema, sexual esteem, and AIDS risk-reducing motivation.

Hypothesis #3

The first tests of the IMB model (Figures 2b and 2c) attempted to replicate Fisher and Fisher's (1992) findings presented in Figure 2a. The path models in Figures 2b and 2c were evaluated in three steps. First, a bivariate correlation was conducted between information and motivation. Presented in Table 5, a significant relationship was identified ($r = .15$, $p = .00$). This finding is in contrast to Fisher and Fisher's (1992) results that found no relationship between these constructs when tested with a sample of heterosexual university students. Second, the endogenous variable to this model, AIDS risk-reducing behavioral skills, was regressed simultaneously on AIDS risk-reducing information and AIDS risk-reducing motivation. The

standardized regression coefficients associated with information (β= .16, t(336) = 3.19, p = .00) and motivation (β= .39, t(336) = 7.86, p = .00) were both found to be significant, consistent with Fisher and Fisher (1992). Finally, sexual communication and frequency of condom use behavior (i.e., AIDS preventive behaviors) were each regressed simultaneously on information, motivation, and behavioral skills. As hypothesized (Figure 2b), motivation (β= -.12, t(334) = -2.14, p = .03) and behavioral skills (β= .44, t(334) = 7.98, p = .00) were significant; in contrast, information (β= .02, t(334) = .44, p = .66) was not found to be significant when sexual communication was entered as the AIDS preventive behavior. When condom use behavior (Figure 2c) was entered as the AIDS preventive behavior, information (β= -.24, t(320) = -4.47, p = .00), motivation (β= .20, t(320) = 3.47, p = .00), and behavioral skills (β= .22, t(320) = 3.85, p = .00) were each found to be significant. In summary, these results provide support for the reliability of the IMB model as a tool to understand AIDS risk-reducing and preventive behaviors for heterosexual university populations.

Hypothesis #4

The second test of the IMB model was to evaluate whether specific constructs (i.e., sexual self-schema, sexual esteem, and AIDS risk-reducing motivation) moderate the relationship between AIDS risk-reducing behavioral skills and AIDS preventive behaviors. Variables involved in the moderation analyses were centered (Cohen, Cohen, West & Aiken, 2002). Next, product terms were formed to test for moderation effects. Tests for moderation were analyzed by regressing each dependent variable (i.e., sexual communication and condom use behavior) on the predictor variable, the moderating variable, and the product term (Baron & Kenny, 1986). Results pertaining to these analyses are presented in Tables 6-11 and Figure 3.

Analyses were conducted to test whether the relationship between behavioral skills and AIDS preventive behaviors is moderated by sexual self-schema. Presented in Tables 6 and 7, the behavioral skills X sexual self-schema product term for sexual communication (β= .08 t(363) = 1.71, p = .08) and condom use behavior (β= -.10, t(346) = -1.84, p = .06) do not support the moderation hypothesis at the $p < .05$ level. Illustrated in Table 6 (sexual communication), there is, however, evidence for statistically significant main effects for both behavioral skills and sexual self-schema (β= .38 t(363) = 7.98, p = .00, and β= .20 t(363) = 4.25, p = .00, respectively). Illustrated in Table 7 (condom use behavior), there is evidence for a statistically significant main effect for behavioral skills but not for sexual self-schema (β= .23 t(346) = 4.31, p = .00, and β= -.02 t(346) = -.43, p = .67, respectively). Due to the fact that no product terms were significant, no further analyses were conducted.

Analyses were conducted to test whether the relationship between behavioral skills and AIDS preventive behaviors is moderated by sexual esteem. Presented in Tables 8 and 9, the behavioral skills X sexual esteem product term for sexual communication (β= -.03 t(370) = -.69, p = .49) and condom use behavior (β= .09, t(354) = 1.68, p = .10) do not support the moderation hypothesis at the $p < .05$ level. Illustrated in Table 8 (sexual communication), there is evidence for statistically significant main effects for both behavioral skills and sexual esteem (β= .37 t(370) = 8.04, p = .00, and β= .24 t(370) = 5.06, p = .00, respectively). Illustrated in Table 9 (condom use behavior), there is evidence for statistically significant main effects for both behavioral skills and sexual esteem (β= .22 t(354) = 4.23, p = .00, and β= -.13 t(354) = -2.46 p = .01, respectively). Due to the fact that no product terms were significant, no further analyses were conducted.

Hypothesis #5

Analyses were conducted to test whether the relationship between behavioral skills and AIDS preventive behaviors is moderated by motivation. Presented in Table 10, the behavioral skills X motivation product term for sexual communication (β= .12 t(370) = 2.35, p = .02) yielded significant results. The behavioral skills X motivation product term for condom use behavior (β= .00, t(353) = -.01, p = .99) does not support the moderation hypothesis at the $p <$ .05 level. Illustrated in Table 11 (condom use behavior), there is evidence for statistically significant main effects for both behavioral skills and motivation (β= .13 t(353) = 2.35, p = .02, and β= .21 t(353) = 3.81, p = .00, respectively).

To explicate the moderation effect presented in Table 10, a software program that explicates moderated interactions in multiple regression was employed (O'Connor, 1998). The first step involved computing simple slope statistics at two levels (i.e., one standard deviation below and above the mean) of the moderator, AIDS risk-reducing motivation. Next, data for plots of simple regression lines were generated in which the predictor variable's (i.e., AIDS risk-reducing behavioral skills) range was set at 2 standard deviations below and 2 standard deviations above the predictor variable mean. Two new product terms were then created between each level of the moderator and the predictor variable (i.e., behavioral skills X low motivation; behavioral skills X high motivation). The criterion variable, sexual communication, was then regressed twice for each set of variables: 1) behavioral skills, low motivation, and the product term; 2) behavioral skills, high motivation, and the product term. The simple slope at Low motivation (β= .15 t(370) = 5.49, p = .00) and High motivation (β= .24 t(370) = 7.92, p = .00) suggest that the relationship between behavioral skills and sexual communication are influenced by one's level of motivation. More specifically, the simple slopes presented in Table 3 suggest

that, as hypothesized, the relationship between behavioral skills and sexual communication is weaker at lower levels of motivation and stronger at higher levels of motivation.

Discussion

The primary goals of this study were (1) to examine the relationship between sexual risk-taking behaviors and intrapersonal sexuality constructs (i.e., sexual self-schema and sexual esteem) and (2) to test the utility of the Information-Motivation-Behavioral skills model as a tool to predict AIDS preventive behaviors (i.e., sexual communication and condom use behavior). Previous studies have found support for the use of cognitive constructs (Andersen & Cyranowski, 1994; Andersen et al., 1999; Garcia, 1999; Snell, 2001; Snell, Fisher, & Walters, 1993) and affective constructs (Fisher et al., 1988, Garcia & Carrigan, 1998; Smith & Snell, 2001; Snell et al., 1992; Snell et al., 1993) of sexuality in the prediction of sexual behaviors, attitudes, and decision-making. Few studies, however, have employed these constructs to examine their relationship to sexual risk-taking behaviors and decision-making. This study attempted to elucidate these relationships. As efforts to understand AIDS preventive behaviors have led to the development of conceptual models (e.g., TRA, HBM, IMB) and intervention programs, more recent studies (Fisher & Fisher, 1992; Fisher et al., 1996) have found empirical support for the IMB model as both a conceptual model and framework for prevention and intervention programs. Little is known, however, with regard to factors that might strengthen or weaken the relationship between AIDS risk-reducing behavioral skills and AIDS preventive behaviors. To address this paucity in the literature, this study tested whether certain factors (i.e., sexual self-schema, sexual esteem, and AIDS risk-reducing motivation) serve to moderate the relationship between AIDS risk-reducing behavioral skills and AIDS preventive behaviors.

Correlational analyses demonstrated that the two measures of intrapersonal sexuality, sexual self-schema and sexual esteem, were related but conceptually different constructs. This finding suggests that the more sexually schematic one is (i.e., the tendency to make more

sexually based cognitive generalizations about oneself) the more likely he is to positively evaluate his ability to relate to others in a sexual manner (i.e., sexual esteem). This is consistent with Beck's (1995) discussions regarding the relationship between one's thoughts and feelings, suggesting that the way one thinks about himself directly and indirectly influences the way he feels about himself. In turn, the way one then feels about himself impacts the way he then thinks about himself. Thus, the positive relationship between sexual self-schema and sexual esteem is not surprising given the evidence to support Beck and others' theories regarding the relationship between cognitions and emotions.

In contrast to Andersen et al.'s (1999) results that supported the relationship between being sexually schematic (i.e., higher scores of sexual self-schema) and having high frequency of sexual experiences, both in committed relationships and casual sex partners, this study did not find support for such a relationship. These non-significant findings might be explained by the fact that sexual self-schema does not actually represent a reliable or valid measure indicator for risky sexual behavior (e.g., high frequency sexual behavior, multiple partners, low condom use behavior). It might also suggest that how one thinks about himself sexually might not always be consistent with the behaviors one engages in. More specifically, sociocultural prescriptions of male sexuality (see Zilbergeld, 1999) in the United States are synonymous with being liberal, dominant, successful, experienced, and aggressive, all factors that load on the high end of sexual self-schema and factors that many males, even if they lack the behaviors to support such notions, are likely to endorse since they are so pervasive in our culture and influential on the male sexual schema. These schematic generalizations that the men in this study endorsed, however, did not relate to corresponding sexual activity.

This study did find support for the relationship between higher levels of sexual esteem and elevated levels of sexual risk-taking behavior. Regression analyses also supported the hypothesis that sexual esteem predicts measures of sexual risk-taking alone even after controlling for sexual self-schema. The measures of sexual risk-taking that sexual esteem correlated with and predicted, however, were only the measures specifically related to sexual behavior (e.g., number of sexual partners before and while in college, number of lifetime partners, and number of partners in the last two months). Analyses did not support the relationship between sexual esteem and other measures of sexual risk-taking, such as condom use behavior, number of casual sex partners, or use of alcohol/drugs before or during sexual intercourse. Overall, these findings corroborate the findings reported on by Fisher et al. (1988), Garcia and Carrigan (1998), and Smith and Snell (2001) who each found a relationship between increased levels of sexual behavior and more positive feelings about one's sexual self.

Unlike sexual self-schema, sexual esteem appears to represent a reliable and valid indicator of sexual behavior and, in this study particularly, risky sexual behavior. With regard to the implications of sexual esteem, the cross-sectional and correlational nature of this study raises questions whether males 1) as a result of multiple sexual experiences begin to feel more positive about their sexual selves, 2) are more prone to feel positive about their sexual selves due to other social-cognitive or biological factors and that these factors leads to an increased likelihood of engaging in potentially risky sexual behavior, 3) or that sexual esteem and sexual behavior share a reciprocal relationship. It is apparent that increased sexual experiences, combined with increased number of partners, combined with decreased condom use contribute to an overall level of health risks. This study, however, was not able explicate whether there are varying levels of high sexual esteem that pose elevated risks for engaging risky sexual behavior largely due to

the convenience sample and the lack the sufficient power needed to identify enough “high sexual esteem” males.

The second set of analyses tested the Information-Motivation-Behavioral Skill (IMB) model of AIDS preventive behaviors. With some differences, this study replicated Fisher and Fisher’s (1992) findings, the study that validated the IMB model on both a gay male sample and a sample of heterosexual university students. One noteworthy difference in this study was the significant relationship between information and motivation. Contrary to other studies, this study’s results suggest that the more informed one is with regard to the risk associated with AIDS, the more motivated they are to engage in safe sexual behaviors. A second difference evidenced in the replication test of the IMB model points to the change in relationship between motivation and each AIDS preventive behaviors. Results yielded a negative relationship between motivation and sexual communication but a positive relationship between motivation and condom use behavior. This change in relationship is likely attributed to the negative relationship between sexual communication and condom use (Table 5). Although both sexual communication and condom use behavior behaviors have been proven to be reliable indicators of reduced risk to AIDS (Fisher & Fisher, 1992), the results in this study suggest that each behavior continue to be examined as unique factors of AIDS preventive behavior rather than combining them to form an aggregate construct.

Following replication of the IMB model, analyses were conducted to examine moderating factors that might weaken the IMB model. Although neither sexual self-schema nor sexual esteem impacted the relationship between AIDS risk-reducing behavioral skills and AIDS preventive behaviors, motivation did significantly moderate this relationship. Specifically, the moderation analyses indicate that the likelihood of engaging in sexual communication does

depend on how motivated one is to engage in safe sexual behavior even if the individual has high levels of risk-reducing behavioral skills. There are several implications related to this finding. First, it challenges the order of the path model and emphasis of risk-reducing behavioral skills detailed in the IMB model. Second, similar to issues Prochaska and Diclemente (1992) discuss related to stages of change one must moves through in order address problematic behavior, being motivated to engage in safe sex behavior likely represents a precursor to successful behavioral change regardless of how informed and skilled one might be related to safe sex behavior. Subsequently, it seems necessary that more explicative research be conducted to further examine the role of motivation and that motivation become an integral component to any intervention research and treatment programs aimed at reducing risky sexual behavior.

In conclusion, this study found support for 1) the utility of sexual esteem as an indicator of risky sexual behavior, 2) the reliability of the IMB model as a tool to predict AIDS preventive behaviors, and 3) the importance of risk-reducing motivation as a contributing component to safer sex.

Limitations of the present study

Several limitations are worth discussing with regard to sexual risk-taking behavior assessed in this study. First, the manner in which condom use behavior was assessed had some notable flaws. Only one question was used to assess condom use behavior. The question itself asked about the last five sexual intercourse experiences, presupposing that participants have had at least five sexual intercourse experiences. Additionally, the question asked about the frequency of those five times rather than a percentage of sexual experiences, resulting in inadequate response options. The effect of the wording and type of question likely contributed to the bimodal response pattern presented in Figure 4. The impact of this bimodal response pattern is

evidenced in the bivariate correlation matrix presented in Table 3, in which each of the eight indicators of risky sex are consistently correlated with each other except for condom use behavior. Second, the low base rate and lack of variability of alcohol and drug use before and during sexual experiences reported on by participants likely resulted in insufficient power, limiting the findings. Responses to these questions seem to represent a pattern of underreporting based on previous studies (Bowler et al., 1992; Hingson et al., 1990; Meilman, 1993) assessing substance use and sexual behavior in adolescent and young adult samples.

A final limitation of this study, and any investigation of this nature that assesses sexual behavior, attitudes, and beliefs, is response bias. This study relied exclusively on retrospective reports without any control for reporting biases due to inaccurate memories or willingness to admit such experiences. Response biases have been well-documented in the sexuality literature (e.g., Meston, Heiman, Trapnell, & Paulhaus, 1998; Wiederman, 1999) and continue to be a problematic issue for sexuality researchers. In an effort to address some the concerns endemic in sexuality research, participants completed electronic surveys at a location of their choosing, allowing for as much privacy as each participant desired. Mustanksi (2001) and others have discussed the benefits of conducting similar research via the internet or other electronic mediums that reduce many of the interpersonal concerns one might have when completing sexuality questionnaires. An obvious limitation of this method of data collection, however, is the uncertainty of whether the individual, who agreed to complete the survey, is completing it by himself or if he is even the one actually completing the survey at all. These are safeguards easier to insure when conducting survey research in a laboratory or live group administration format.

Future Research

Based on the results in this study with regard to sexual esteem, future studies might consider examining this construct more closely to determine whether certain elevated levels of sexual esteem do put individuals in a risk group that might benefit from specific interventions. Not only have affective and cognitive components of one's sexuality lacked a presence in the sexual health literature but so too have issues such as cultural and gender prescriptions of sexuality. Several issues related to risky sexual behavior and decision-making, such as the role of power dynamics related to one's gender, specifically for women, as well as the influence of sociocultural issues (e.g., machismo/marianismo, the prevalence of "down low" partners, perceptions of low sex ratio availability) particularly in racial and ethnic minority populations require more attention, particularly in the intervention literature. This study also highlights the need for researchers and clinicians to continue being flexible with the scope with which we define sexuality and the issues that impact one's likelihood to engage in healthy behaviors. Future studies and interventions must continue to consider the multidimensionality and uniqueness with which one defines his or her sense of sexual self. It is the author's hope that this study not only contribute to existing body of sexuality research but add to future sexual education, interventions, and dialogue that are necessary if we are to continue reducing sexually transmitted infections and improve the sexual health of at-risk populations.

Table 1
Demographic Characteristics of Sexually Active Participants (N=465)

	% (N)[a]
Age	
18	24.5 (114)
19	32.7 (152)
20	23.2 (108)
21	11.2 (52)
22	3.9 (18)
23 and older	2.7 (13)
Race/ethnic background	
White (not Hispanic)	89.2 (415)
Black (not Hispanic)	2.4 (11)
Hispanic	1.5 (7)
Asian or Pacific Islander	3.4 (16)
Biracial/Multiracial	1.9 (9)
Other	1.3 (6)
Relationship status	
Single, not dating	35.9 (167)
Single, and dating	26.7 (124)
Steady and monogamous relationship	28.8 (134)
Steady relationship that is not monogamous	1.1 (5)
Steady relationship in which you have not had sex with your partner	6.0 (28)
Year in school (undergraduate)	
1st year	33.1 (154)
2nd year	35.3 (164)
3rd year	18.7 (87)
4th year	8.6 (40)
5th year	3.0 (14)
Religious affiliation	
Agnostic	1.9 (9)
Atheist	3.9 (18)
Baptist	17.2 (80)
Catholic	16.3 (76)
Christian	23.0 (107)
Jewish	5.4 (25)
Methodist	1.5 (7)
Presbyterian	4.9 (23)
Protestant	4.7 (22)
I do not identify with any particular religion	14.2 (66)
Other	4.5 (21)

[a] Since the programming of the questionnaire packet required a response for every question, IRB required that each question have included as one of its answers, "I choose to SKIP this question." Therefore, percentages may not equal 100% and totals may not equal 465 due to participants choosing to skip questions.

Table 2
Descriptive Statistics of Sexually Active Participants (N=465)

	% (N)[a]
Age of first sexual intercourse[b]	
10-12	.6 (3)
13-15	19.1 (89)
16-18	68.7 (319)
19-21	9.9 (46)
Number of Lifetime Sexual Partners[c]	
1-3	55.2 (257)
4-6	20.4 (95)
7-9	6.7 (31)
10-15	7.3 (34)
16 or more	2.4 (11)
Most recent sexual intercourse	
Within the past week	39.4 (183)
Within the last month	20.0 (93)
Within the last 6 months	23.0 (107)
Within the last 12 months	6.2 (29)
Within the last 5 years	8.2 (38)
Number of times you or partner used condom during last 5 sexual intercourse experiences	
0 times	30.3 (141)
1 time	5.4 (25)
2 times	6.0 (28)
3 times	9.0 (42)
4 times	10.8 (50)
5 times	31.4 (146)
Other[d]	7.1 (33)
Frequency of sexual intercourse with "casual partners" and "one night stands" in the past year [e]	
Never	53.8 (250)
Once	8.4 (39)
Twice	12.7 (59)
Three times	5.8 (27)
Four Times	6.2 (29)
More than for times	7.2 (33)

[a] See footnote 'a' in Table 1.
[b] Unless specified, sexual intercourse in this survey was defined to the participants as vaginal, oral, and/or anal intercourse.
[c] Unless specified, sexual partners in this survey were defined to the participants as anyone with whom you have engaged in vaginal, oral, and/or anal intercourse.
[d] These responses all included individuals who indicated having sexual intercourse less than 5 times and who could not accurately answer the question
[e] In this study, casual partners were defined as individuals one has sexual intercourse with who you do not consider an exclusive dating partner; "one night stands" were defined as individuals one has sexual intercourse one time and never have sexual contact with them again.

Frequency of alcohol/drug use before sexual intercourse	
Never	15.1 (70)
Rarely	41.3 (192)
Sometimes	29.7 (138)
Most of the time	8.0 (37)
Always	1.1 (5)
Frequency of alcohol/drug use during sexual intercourse	
Never	54.6 (254)
Rarely	29.9 (139)
Sometimes	8.4 (39)
Most of the time	1.5 (7)
Always	.4 (2)
What prevents you from using a condom	
I always use a condom	32.0 (149)
Forget to carry condoms	18.5 (86)
Choose not to use condoms	3.9 (18)
Partner uses some form of protection	15.7 (73)
Decreases sexual stimulation	7.5 (35)
Know partner well enough to not need protection	9.9 (46)
Other [f]	6.0 (28)
Ever been diagnosed with a sexually transmitted disease	
Yes	1.3 (6)
No	97.6 (454)
Ever been treated for a sexually transmitted disease	
Yes	2.2 (10)
No	96.8 (450)
Ever been tested for HIV/AIDS	
Yes	12.9 (60)
No	86.5 (402)
Most influential in the way you think about sex	
Family	18.3 (85)
Friends	35.9 (167)
School	3.7 (17)
Media	7.3 (34)
Past sexual relationship	14.4 (67)
I don't know	15.7 (73)
Other	3.7 (17)

[f] Although these "other" responses varied, most of the responses include some variation of one of the following two quotes from participants in this study and represent common misconceptions about sexual behavior: " my partner's on birth control and that keeps us safe enough," or "I don't think oral sex requires condom use."

Table 3

Relationship between Sexual Self-Schema (SSS), Sexual Esteem (SE), and Sexual Risk-Taking Factors

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1. SSS	1									
2. SE	.23**	1								
3. Sexual partners before college	.06	.17**	1							
4. Sexual partners while in college	.02	.19**	.30**	1						
5. Lifetime Sexual Partners	.04	.21**	.71**	.81**	1					
6. Sexual partners in last 2 months	.04	.14**	.31**	.51**	.47**	1				
7. Condom behavior in last 5 encounters	.04	-.04	.05	.08*	.07	.08	1			
8. Number of casual partners & "one night stands"	-.02	.08*	.28**	.51**	.49**	.35**	.15**	1		
9. Alcohol/drug use before sex	-.15**	-.01	.15**	.38**	.35**	.20**	.10*	.41**	1	
10. Alcohol/ drug use during sex	-.07	-.01	.11*	.19**	.19**	.17**	.11*	.32**	.53**	1

**. Correlation is significant at the 0.01 level (1-tailed).

* . Correlation is significant at the 0.05 level (1-tailed).

Table 4

Multiple Regression Results for Sexual Risk Taking (SRT)Behaviors

SRT Behaviors	Sexual Self- Schema	Sexual Esteem
Sexual partners before college	.01	.06**
Sexual partners while in college	.00	.06**
Lifetime Sexual Partners	.00	.11**
Sexual partners in last 2 months	.00	.02** .
Condom behavior in last 5 encounters	.01	-.02
Number of casual partners & "one night stands"	.00	.02
Alcohol/drug use before sex	-.01**	.00
Alcohol/drug use during sex	.00	.00

Values represent standardized regression coefficients

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

Table 5

Relationship among Factors of the Information-Motivation-Behavioral Skills Model of AIDS Preventive Behaviors

IMB Factors	1	2	3	4	5
1. Information M=34.0; SD= 3.50	1				
2. Motivation M=65.12; SD=11.59	.15**	1			
3. Behavioral Skills M=110.88; SD= 16.39	.24**	.39**	1		
4. Sexual Communication M=37.59; SD= 6.57	.12*	.13**	.43**	1	
5. Condom Use Behavior M=3.58; SD= 2.15	-.14**	.25**	.20**	-.09	1

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

Figure 2a

Fisher and Fisher's (1992) Information-Motivation-Behavioral Skills (IMB) tested with a sample of heterosexual university students

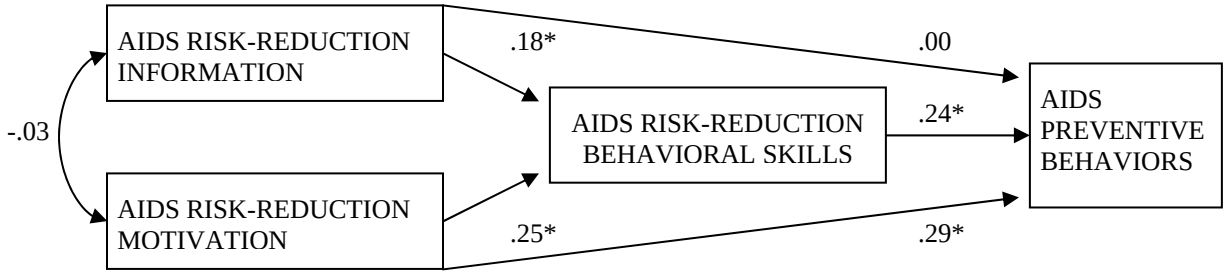


Figure 2b

A test of the Information-Motivation-Behavioral Skills (IMB) tested with sexual communication as the AIDS preventive behavior

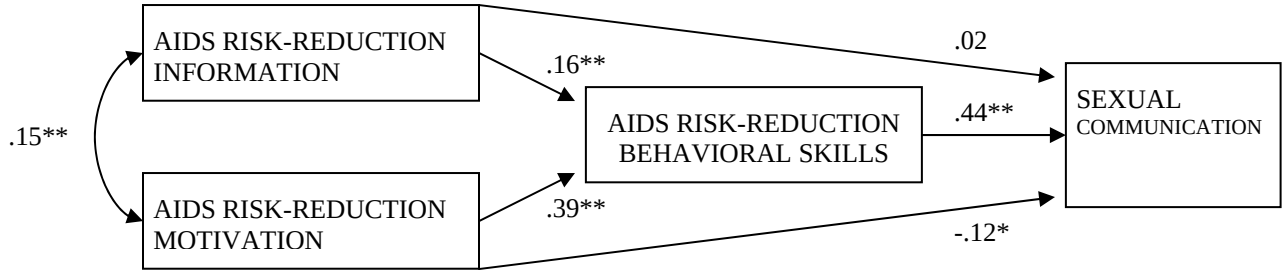
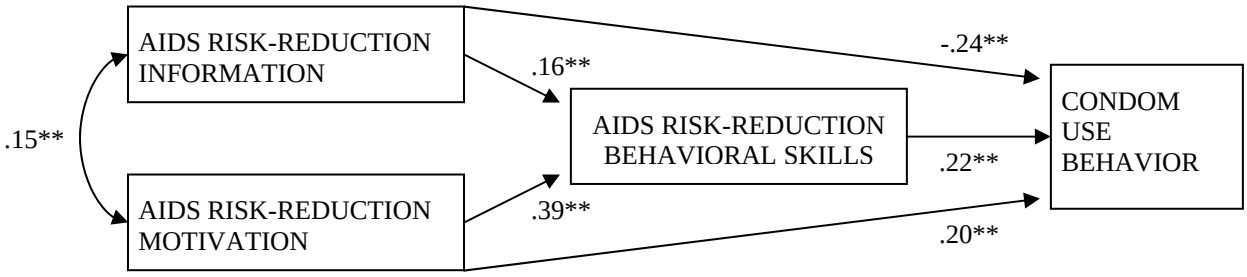


Figure 2c

A test of the Information-Motivation-Behavioral Skills (IMB) tested with condom use behavior as the AIDS preventive behavior



Values represent standardized regression coefficients
** $p < .01$.
* $p < .05$.

Table 6

Summary of Multiple Regression Analyses for Behavioral skills, Sexual Self-Schema, and Interaction Predicting Sexual Communication

	Predictors	Beta	t	Significance level
1	Behavioral Skills	.38	7.98	.00
	Sexual Self-schema	.20	4.25	.00
2	Behavioral Skills	.37	7.84	.00
	Sexual Self-schema	.22	4.48	.00
	Behavioral Skills X Sexual Self Schema	.08	1.71	.09

Table 7

Summary of Multiple Regression Analyses for Behavioral skills, Sexual Self-Schema, and Interaction Predicting Condom Use Behavior

	Predictors	Beta	t	Significance level
1	Behavioral Skills	.23	4.31	.00
	Sexual Self-schema	-.02	-.43	.67
2	Behavioral Skills	.24	4.41	.00
	Sexual Self-schema	-.03	-.61	.54
	Behavioral Skills X Sexual Self Schema	-.10	-1.84	.07

Table 8

Summary of Multiple Regression Analyses for Behavioral skills, Sexual Esteem, and Interaction Predicting Sexual Communication

	Predictors	Beta	t	Significance level
1	Behavioral Skills	.37	8.04	.00
	Sexual Esteem	.24	5.06	.00
2	Behavioral Skills	.38	7.96	.00
	Sexual Esteem	.24	5.10	.00
	Behavioral Skills X Sexual Esteem	-.03	-.69	.49

Table 9

Summary of Multiple Regression Analyses for Behavioral skills, Sexual Esteem, and Interaction Predicting Condom Use Behavior

	Predictors	Beta	t	Significance level
1	Behavioral Skills	.22	4.23	.00
	Sexual Esteem	-.13	-2.46	.01
2	Behavioral Skills	.20	3.72	.00
	Sexual Esteem	-.15	-2.74	.01
	Behavioral Skills X Sexual Esteem	.09	1.68	.10

Table 10

Summary of Multiple Regression Analyses for Behavioral skills, Motivation, and Interaction Predicting Sexual Communication

	Predictors	Beta	t	Significance level
1	Behavioral Skills	.46	9.09	.00
	Motivation	-.09	-1.84	.07
2	Behavioral Skills	.49	9.44	.00
	Motivation	-.14	-2.62	.01
	Behavioral Skills X Motivation	.12	2.35	.02

Table 11

Summary of Multiple Regression Analyses for Behavioral skills, Motivation, and Interaction Predicting Condom Use Behavior

	Predictors	Beta	t	Significance level
1	Behavioral Skills	.13	2.35	.02
	Motivation	.21	3.81	.00
2	Behavioral Skills	.13	2.28	.02
	Motivation	.21	3.48	.00
	Behavioral Skills X Motivation	.00	-.01	.99

Figure 3

Moderating Effects of Motivation on the Relationship between Behavioral Skills and AIDS Preventive Behaviors

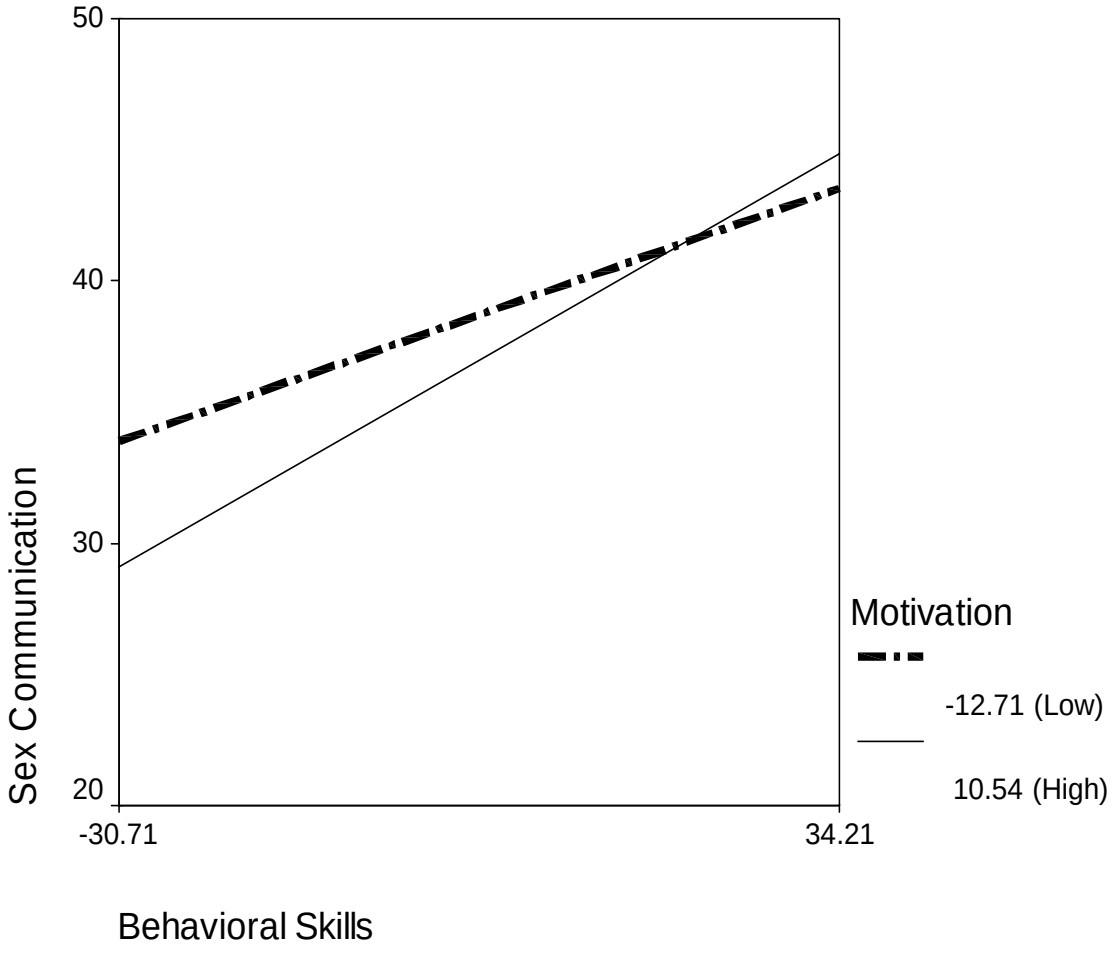
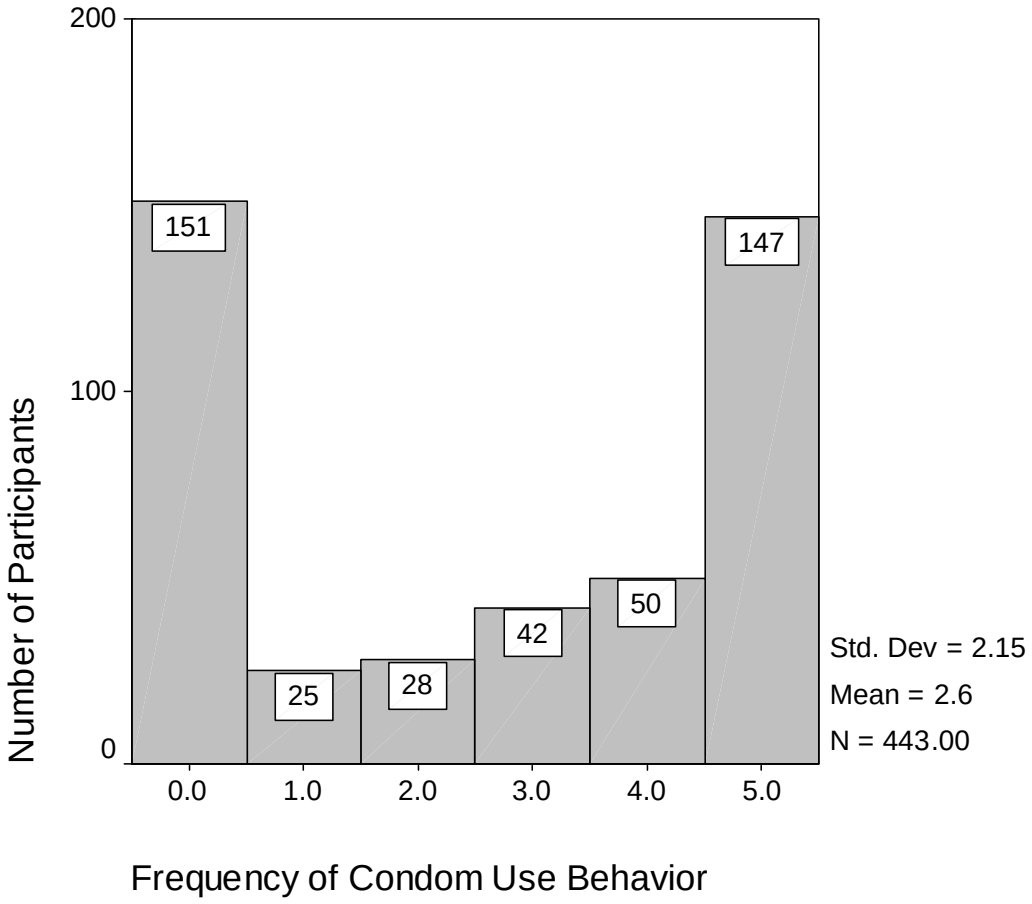


Figure 4

The Bimodality of Condom Use Behavior: Frequency of Condom Use Behavior During the Last Five Sexual Intercourse Experiences



References

Abrams, D., & Abraham, C. (1988). Social psychology and the spread of AIDS. *The Psychologist, 1,* 47.

Adler, N., & Hendrick, S. (1991). Relationships between contraceptive behavior and love attitudes, sex attitudes and self esteem. *Journal of Counseling and Development, 70,* 302-308.

Ajzen, I. (1987). Attitudes, traits, and actions: Dispositions prediction of behavior in personality and social psychology. *Advances in Experimental Social Psychology, 20,* 1-63.

Alan Guttmacher Institute (1994). *Sex and America's Teenagers.* New York: Alan Guttmacher Institute.

Andersen, B., & Cyranowski, J. (1994). Women's sexual self-schema. *Journal of Personality and Social Psychology*, 67, 1079-1100.

Andersen, B., Cyranowski, J., & Espindle, D. (1999). Men's sexual self-schema. *Journal of Personality and Social Psychology*, 76, 645-661.

Annenberg Public Policy Center (APPC) and the National Institute of Mental Health (NIMH) (1999). APPC/NIMH workgroup on effectiveness of abstinence-only and safer sex education programs: A position statement. Unpublished working group report.

Armitage, C., & Conner, M. (2001). Efficacy of the theory of planned behavior: A meta-analytic review. *British Journal of Social Psychology, 40,* 471-99.

Ajzen, I. and Fishbein, M. (1980). Understanding Attitudes and Predicting Social Behavior. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Baffi, C., Schroeder, K., Redican, K., & McCluskey, L. (1989). Factors influencing selected heterosexual male college students' condom use. *Journal of American College Health, 38,* 137-141.

Bailey, W., Hendrick, C., & Hendrick, S. (1987). Relation of sex and gender role to love, sexual attitudes, and self-esteem. *Sex Roles, 16*, 637-648.

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

Beck, J. (1995). *Cognitive Therapy: Basics and Beyond.* New York: Guilford Press.

Becker, M. (1974). *The Health Belief Model and personal health behavior.* Thorofare, NJ: Slack.

Bentler, P. (1968). Heterosexual behavior assessment: I. Males. *Behavior Research & Therapy, 6,* 21-25.

Bishop, P., & Lipsitz, A. (1991). Sexual behavior among college students in the AIDS era: A comparative study. *Journal of Psychology of Human Sexuality, 4,* 135-148.

Boldero, J., Moore, S., & Rosenthal, D. (1992). Intention, context and safe sex. *Journal of Applied Social Psychology, 22,* 1357-1397.

Bowler, S., Sheon, A., D'Angelo, L., & Vermund, S. (1992). HIV and AIDS among adolescence in the United States: Increasing risks in the 1990s. *Journal of Adolescence, 15,* 345-371.

Boyer, C., Tschann, J., & Shafer, M. (1999). Predictors of risk for sexually transmitted diseases in ninth grade urban high school students. *Journal of Adolescent Research, 14,* 448–465.

Brady, J., & Levitt, E. (1965). The scalability of sexual experiences. *Psychological Record, 15,* 275-279.

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

Breakwell, G. (1996). Risk Estimation and Sexual Behavior: A longitudinal study of 16–21 year olds. *Journal of Health Psychology, 1,* 79–91.

Breakwell, G., & Millward, L. (1997). Sexual self-concept and sexual risk-taking. *Journal of Adolescence, 20,* 29-41.

Brown, I. (1984). Development of a scale to measure attitudes towards the condom as a method of birth control. *The Journal of Sex Research, 20,* 255-263.

Byrne, D. & Fisher, W. (Eds.) (1983). *Adolescents, sex, and contraception.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Capaldi, D., Stoolmiller, M., Clark, S., & Owen, L. (2002). Heterosexual risk behaviors in at-risk young men from early adolescence to young adulthood: Prevalence, prediction, and association with STI contraction. *Developmental Psychology, 38*, 394-406.

Caron, S., Davis, C., Halteman, W., & Stickle, M. (1993). Predictors of condom-related behavior among first-year college students. *Journal of Sex Research, 30,* 252-259.

Carroll, J., Volk, D., & Hyde, S. (1985). Differences between males and females in motives engaging in sexual intercourse. *Journal of Sexual Behavior, 14,* 131-139.

Catania, J., Kegeles, S., & Coates, T. (1988). Psychosocial measures for the study of AIDS risk behavior. Technical Report to the World Health Organization. Center for AIDS Prevention Studies. University of California-San Francisco.

Center for Disease Control and Prevention (2003). Young people at Risk: HIV/AIDS among America's Youth-[Fact Sheet]. CDC-NCHSTP-Divisions of HIV/AIDS Prevention (July 8, 2003).

Center for Disease Control and Prevention (2000). *Tracking the hidden epidemics: Trends in STDs in the United States.* United States Department of Health and Human Services, Public Health Service, Atlanta, Ga.

Center for Disease Control and Prevention (1998). *Sexually Transmitted Disease Surveillance, 1997,* United States Department of Health and Human Services, Public Health Service, Atlanta, Ga.

Clift, S., Wilkins, J., & Davidson, E. (1993). Impulsiveness, venturesomeness and sexual risk-taking among heterosexual genito-urinary medical clinic attenders. *Personality and Individual Differences, 15,* 403–410.

Cline, R., Freeman, K., & Johnson, S. (1990). Talk among sexual partners about AIDS: Factors differentiating those who talk from those who do not. *Communication Research, 17,* 792-808.

Cochran, S., & Peplau, L. (1991). Sexual risk reduction behaviors among young heterosexual adults. *Social Science and Medicine, 33,* 25-37.

Cohen, J., Cohen, P., West, S., & Aiken, L. (2002). *Applied Multiple Regression: Correlation Analysis for the Behavioral Science.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Cole, F., and Slocumb, E. (1995). Factors influencing safer sexual behaviors in heterosexual late adolescents and young adult collegiate males. *Journal of Nursing Scholarship, 2,* 217-222.

Coleman, E. (2002). Promoting sexual health and responsible sexual behavior: An introduction. *Journal of Sex Research, 39,* 3-6.

Conner, M., & Sparks, P. (1996). The theory of planned behavior and health behaviors. In M. Connor & P. Norman (Eds.), *Predicting health behavior: Research and practice with social cognition models (pp. 121-162).* Buckingham, England: Open University Press.

Connor, M., & Norman, P. (1996). The role of social cognition in health behaviors. In M. Connor, & P. Norman (Eds.), *Predicting health behavior: Research and practice with social cognition models (pp. 1-22).* Buckingham, England: Open University Press.

Crowne, D., & Marlowe, D. (1960). A New Scale of Social Desirability Independent of Psychopathology. *Journal of Consulting Psychology, 24*, 349-354.

DeHart, D., & Birkimer, J. (1997). Trying to practice safer sex: Development of the Sexual Risks Scale. *Journal of Sex Research,* 34, 11-25.

Derogatis, L., & Melisaratos, N. (1979). The DSFI: A multidimensional measure of sexual functioning. *Journal of Sex and Marital Therapy, 5,* 244-281.

Desiderato, L., & Crawford, H. (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.

DiClemente, R., Forrest, K., & Mickler, S. (1990). College students' knowledge and attitudes about AIDS and changes in HIV-preventative behaviors. *AIDS Education and Prevention, 2,* 201-212.

DiClemente, R., & Peterson, J. (1994). *Preventing AIDS: Theories and methods of behavioral interventions.* New York: Plenum Press.

Donovan, P. (1993). *Testing positive: Sexually transmitted disease and public health response.* New York: The Alan Guttmacher Institute.

Douglas, K., Collins, J., Warren, C., Kann, L., Gold, R, Clayton, S., Ross, J., & Kolbe, L. (1997). Results from the 1993 National College Health Risk Behavior Survey. *Journal of American College Health, 46,* 55-66.

Eisenberg, M. (2001). Differences in sexual risk behaviors between college students with same-sex and opposite-sex experience: Results from a national survey. *Archives of Sexual Behavior*, 30, 575-589.

Ericksen, K., & Trocki, K. (1992). Behavioral risk factors for sexually transmitted diseases in American households. *Social Science Medicine, 34,* 843–853.

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., & Azjen, I. (1975). *Belief, attitude, contention, and behavior.* Reading, MA: Addison-Wesley.

Fisher, W. A. (1990). An integrated approach to preventing adolescent pregnancy and STI/HIV infection. *SIECUS Report, 18,* 1-11.

Fisher, W., Byrne, D., White, L., & Kelly, K. (1988). Erotophobia-erotophilia as a dimension of personality. *Journal of Sex Research, 25,* 123-151.

Fisher, J. & Fisher, W. (2000). Theoretical approaches to individual-level change in HIV risk behavior. In J.L. Peterson & R.J. DiClemente (Eds.), *Handbook of HIV prevention (pp. 3-55).* New York: Kluwer Academic/Plenum Publishers.

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

Fisher, J., Fisher, W., Misovich, S., Kimble, D., & Malloy, T. (1996). Changing AIDS risk behavior: Effects of an intervention emphasizing AIDS risk reduction information, motivation, and behavioral skills in a college student population. *Health Psychology, 15,* 114-123.

Fisher, J. D. & Misovich, S. J. (1990). Evolution of college students' *AIDS*-related behavioral responses, attitudes, knowledge, and fear. *AIDS Education and Prevention*, 2, 322-337.

Franzini, L., Sideman, L., Dexter, K., & Elder, J. (1990). Promoting *AIDS risk* reduction via behavioral training. *AIDS Education and Prevention*, 2, 313-321.

Freimuth, V., Hammond, S., Edgar, T., McDonald, D. and Fink, E. (1992). Factors explaining intent, discussion and use of condoms in first-time sexual encounters. *Health Education, 2,* 203-215.

Galavotti, C., Schnell, D. & O'Reilly, K. (1990). *Impact of four HIV/AIDS prevention programs on psychosocial factors thought to facilitate risk behavior change.* Poster presented at the Sixth International Conference on *AIDS*, San Francisco.

Garcia, L. (1999). The certainty of the sexual self-concept. *The Canadian Journal of Human Sexuality,* 8, 263-270.

Garcia, L., & Carrigan, D. (1998). Individual and gender differences in sexual self-perceptions. *The Journal of Psychology and Human Sexuality,* 10, 59-70.

Geringer, W., Marks, S., Allen, W., & Armstrong, K. (1993). Knowledge, Attitudes and Behaviors Related to Condom Use and STD in a High Risk Population. *Journal of Sex Research, 30*, 75-83.

Gibson, D. R., Wermuth, L., Lovelle-Drache, J., Ham, J. & Sorensen, J. L. (1989). Brief counseling to reduce AIDS risk in intravenous drug users and their sexual partners: Preliminary results. *Counseling Psychology* Quarterly*, 2,* 15-19.

Grunbaum, J., Kann, L., Kinchen, S., Ross, J., Hawkins, J., Lowry, R., et al. (2004). Youth Risk Behavior Surveillance-United States (2003). *Morbidity and Mortality Weekly Report, 53,* 1-95.

Hernandez, J., & Smith, F. (1991). Sensation seeking and STI control. *Journal of Health Education, 22,* 301–312.

Hingson, R., Strunin, L., Berlin, B., & Heeren, T. (1990). Beliefs about AIDS, use of alcohol and drugs, and unprotected sex among Massachusetts adolescents. *American Journal of Public Health, 80*, 295-299.

Hollar, D., & Snizek, W. (1996). The influences of knowledge of HIV/AIDS and self-esteem on the sexual practices of college students. *Social Behavior and Personality, 24*, 75-86.

Holtzman, D., Mathis, M., Kann, L., Collins, J., & Kolbe, L. (1995). Trends in risk behaviors for HIV infection among U.S. high school students, 1989-1991. *AIDS Education and Prevention, 7,* 265-277.

Horvath, P., & Zuckerman, M. (1993). Sensation seeking, risk appraisal, and risky behavior. *Personality and Individual Differences, 14,* 41–52.

Institute of Medicine, Committee on Prevention and Control of Sexually Transmitted Diseases. (1997). The hidden epidemic: Confronting sexually transmitted diseases. Washington DC: National Academy Press.

Ishii-Kuntz, M., Whitbeck, L., & Simons, R. (1990). The impact of knowledge and concern about AIDS on sexual behavior: An analysis of a college student sample from Iowa and California. *Journal of Applied Social Psychology, 20*, 1301-1321.

Janda, L. & O'Grady, K. (1980). Development of a sex anxiety inventory. *Journal of Consulting and Clinical Psychology, 48,* 169-175.

Kalichman, S., Johnson, J., Adair, V., Rompa, D., Multhauf, K., & Kelly, J. (1994). Sexual sensation seeking: scale development and predicting AIDS risk behavior among homosexually active men. *Journal of Personality Assessment, 62,* 385–397.

Kalichman, S. & Rompa, D. (1995). Sexual sensation seeking and sexual compulsivity scales: reliability, validity, and predicting HIV risk behavior. *Journal of Personality Assessment, 65,* 586–601.

Kegeles, S., Adler, N., & Irwin, C. (1988). Sexually active adolescents and condoms: Changes over one year in knowledge, attitudes, and use. *American Journal of Public Health, 78,* 460-461.

Kelly, J., Otto-Salaj, L., Sikkema, K., Pinkerton, S., & Bloom, F. (1998). Implications of HIV treatment advances for behavioral research on AIDS: Protease inhibitors and new challenges in HIV secondary prevention. *Health Psychology, 17,* 310-319.

Kelly, J., St. Lawrence, J., Brasfield, J., & Hood, H. (1989). Group intervention to reduce AIDS risk behaviors in gay men: Applications of behavioral principals. In V. M. Mays, G. W. Albee, & S. F. Schneider (Eds.), Primary prevention of AIDS (pp. 225-241). Newbury Park, CA: Sage.

Kinsey, A., Pomeroy, W., & Martin, C. (1948). *Sexual behavior in the human male.* Philadelphia: W.B. Saunders.

Laumann, E., Gagnon, J., Michael, R., & Michaels, S. (1994). *The social organization of sexuality: Sexual practices in the United States.* Chicago: University of Chicago Press.

Lewis, J. (1995). Psychosocial correlates of HIV risk behavior among college students: A test of the AIDS risk reduction model. *Unpublished dissertation.*

Lewis, J., Malow, R., & Ireland, S. (1997). HIV/AIDS risk in heterosexual college students: A review of a decade of literature. *Journal of College Health, 45,* 147-158.

MacDonald, N., Wells, G., Fisher, W., Warren, W., King, M., Doherty, J., & Bowie, W. (1990). High-risk STI/HIV behavior among college students. *Journal of the American Medical Association, 263,* 3155-3191.

Mahoney, C., Thombs, D., & Ford, O. (1995). Health belief and self-efficacy models: Their utility in explaining college student condom use. *AIDS Education & Prevention, 7,* 32-49.

McCoul, M., & Haslam, N. (2001). Predicting high risk sexual behaviour in heterosexual and homosexual men: the roles of impulsivity and sensation seeking. *Personality and Individual Differences, 31,* 1303-1310.

Meilman, P. (1993). Alcohol-induced sexual behavior on campus. *Journal of American College Health, 42,* 27-31.

Meston, C., Heiman, J., Trapnell, P., & Paulhaus, D. (1998). Socially desirable responding and sexuality self-reports. *Journal of Sex Research, 35,* 148-157.

Moore, S., & Barling, N. (1991). Developmental status and AIDS attitudes in adolescence. *Journal of Genetic Psychology, 152,* 5-16.

Moore, S., & Rosenthal, D. (1991). Condoms and coitus: Adolescents attitudes to AIDS and safe sex behavior. *Journal of Adolescence, 14,* 211-227.

Mosher, D. (1966). The development and multitrait-multimethod analysis of three measures of three aspects of guilt. *Journal of Consulting Psychology*, 30, 25-29.

Mosher, D. (1979). Sex guilt and sex myths in college men and women. *The Journal of Sex Research*, 15, 224-234.

Mustanski, B. (2001). Getting wired: Exploiting the internet for the collection of valid sexuality data. *Journal of Sex Research, 38,* 292-301.

National Institute of Allergy and Infectious Diseases. (1997). Sexually transmitted diseases statistics. Washington, DC: U.S. Department of Health and Human Services.

O'Connor, B. P. (1998). SIMPLE: All-in-one programs for exploring interactions in moderated multiple regression. Educational and Psychological Measurement, 58, 833-837.

O'Keefe, M., Nesselhof-Kendall, S., & Baum, A. (1990). Behavior and prevention of AIDS: Bases of research and intervention. *Personality and Social Psychology Bulletin, 16,* 166–180.

O'Leary, A., Goodhart, F., & Jemmott, L. (1992). Predictors of safer sex on the college campuses: A social cognitive theory analysis. *Journal of the American College of Health, 40,* 254-263.

Padian, N., Hitchcock, P., Fullilove, R., Kohlstadt, V., & Brunham, R. (1990). Report on the NIAID Study Group. Part I: Issues in defining behavioral risk factors and their distribution. *Sexually Transmitted Diseases, 17,* 200–204.

Pepe, M. V., Sanders, D. W., & Symons, C. W. (1993). Sexual behaviors of university freshmen and the implications for sexuality education. *Journal of Sex Education and Therapy, l9,* 20-30.

Prochaska, J., & DiClemente, C. (1992). Stages of change in the modification of problem behaviors. In M. Hersen, R.M. Eisler, & P.M. Miller (Eds.), *Progress on behavior modification*. Sycamore, IL: Sycamore Press.

Reitman, D., St. Lawrence, J. S., Jefferson, K. W., Allyne, E., Brasfield, T. & Shirley, A. (1996). Predictors of African-American adolescents' condom use and HIV risk behavior. *AIDS Education and Prevention, 8,* 499-515.

Rosenthal, D., Moore, S., & Flynn, I. (1991) Adolescent self-efficacy, self-esteem and sexual risk-taking. *Journal of Community & Applied Social Psychology, 1,* 77-86.

Rosenthal, D., & Smith, A. (1997). Adolescent sexual timetables. *Journal of Youth and Adolescence, 26,* 619-636.

Rotheram-Borus, M., Koopman, C., Haignere, C., Davies, M., et al. (1991). Reducing HIV sexual *risk* behaviors among runaway adolescents. *Journal of the American Medical Association, 266,* 1237-1241.

Sawyer, R., & Smith, N. (1996). A survey of situational factors at first intercourse among college students. *American Journal of Health Behavior, 20,* 208-217.

Sheeran, P., Abraham, C., & Orbell, S. (1999). Psychosocial correlates of heterosexual condom use: A meta-analysis. *Psychological Bulletin, 125,* 90–132.

Smith, A., & Snell, W. (2001). Contraceptive behavior: The impact of sexual esteem, sexual depression, and sexual-preoccupation. In W.E. Snell, Jr. (Ed.), *New Directions in the Psychology of Human Sexuality: Research and Theory*. Cape Girardeau, MO: Snell Publications.

Snell, W. (2001). Measuring multiple aspects of the sexual self-concept: The Multidimensional Sexual Self-Concept questionnaire. In W.E. Snell, Jr. (Ed.), *New Directions in the psychology of human sexuality: Research and theory*. Cape Girardeau, MO: Snell Publications.

Snell, W., Fisher, T., & Miller, R. (1991). Development of the Sexual Awareness Questionnaire: Components, reliability, and validity. *Annals of Sex Research, 4*, 65-92.

Snell, W., Fisher, T., & Walters, A. (1993). The Multidimensional Sexuality Questionnaire: An objective self-report measure of psychological tendencies associated with human sexuality. *Annals of Sex Research, 6,* 27-55.

Snell, W., Fisher, T., & Schuh, T. (1992). Reliability and validity of the sexuality scale: A measure of sexual esteem, sexual depression, and sexual-preoccupation. *The Journal of Sex Research*, 29, 261-273.

Snell, W., Hawkins, R., & Belk, S. (1988). Stereotypes about male sexuality and the use of social influence strategies in intimate relationships. *Journal of Social and Clinical Psychology, 7,* 42-48.

Snell, W., & Papini, D. (1989). The sexuality scale: An instrument to measure sexual esteem, sexual depression, and sexual-preoccupation. *The Journal of Sex Research*, 26, 256-263.

Sprecher, S. and McKinney, K. (1993). *Sexuality*. London: Sage Publications.

Thorton, A. (1990). The courtship process and adolescent sexuality. *Journal of Family Issues, 11,* 239-273.

Troth, A., & Peterson, C. (2000). Factors predicting safe-sex talk and condom use in early sexual relationships. *Health Communication, 12,* 195-218.

Turtle, A., Ford, B., Habgood, R., Grant, M., Bekiaris, J., Constantinou, C., Macek, M., & Polyzoidis, H. (1989). AIDS-related beliefs and behaviors of Australian university students. *The Medical Journal of Australia, 150,* 371-376.

U.S. Department of Health and Human Services. (1991). Healthy people 2000. National health promotion and disease prevention objectives. (DHHS Publication No. PHS 91-50213). Washington, D.C.: Public Health Service, U.S. Government Printing Office.

Valdiserri, R., Arena, V., Proctor, D., & Bonati, F. (1989). The relationship between women's attitudes about condoms and their use: Implications for promotion programs. *American Journal of Public Health, 79,* 499-501.

Walsh, A. (1991). Self-esteem and sexual behavior: Exploring gender differences. *Sex Roles, 2,* 441-449.

Wiederman, M. (1999). Volunteer bias in sexuality research using college student participants. *The Journal of Sex Research*, 36, 59-66.

Wiggers, L., de Wit, J., Gras, M., Coutinho, R., & van den Hoek, A. (2003). Risk behavior and social-cognitive determinants of condom use among ethnic minority communities in Amsterdam. *AIDS Education and Prevention, 15,* 430-447.

Winter, L. (1988). The role of sexual self-concept in the use of contraception. *Family Planning Perspectives, 20,* 123-127.

Zeanah, P. & Schwartz, J. (1996). Reliability and validity of the sexual self-esteem inventory for women, *Assessment, 3,* 1-15.

Zilbergeld, B. (1999). *The New Male Sexuality.* New York: Bantum Books.

Zuckerman, M. (1973). Scales for sexual experience for males and females. *Journal of Consulting and Clinical Psychology, 41,* 27-29.

Zuckerman, M., Tushop, R., & Finner, S. (1976). Sexual attitudes and experience: Attitude and personality correlates and changes produced by a course in sexuality. *Journal of Consulting and Clinical Psychology, 44,* 7-19.

Appendices

********************************Consent Form****************************

I agree to participate in the research titled, Men's Relationship Experiences, which is being conducted by Josh Spitalnick and Dr. Steven Beach, Department of Psychology, (706) 542-1173. I understand that my participation is entirely voluntary and I can withdraw my consent at any time without penalty. If I would like to learn about the results of this study, I may contact Josh Spitalnick or Dr. Steven Beach by mailing a letter requesting the results of the study entitled Men's Relationship Experiences. I will include my name and permanent address in the letter. The researchers can be reached at the following address: Department of Psychology, Psychology Building, The University of Georgia, Athens, GA 30602.

The following points have been explained to me:

1. The reason for this study is to gain a better understanding of the experiences men have in their sexual relationships and how certain individual thoughts and feelings impact these relationships. The questionnaires in this study will inquire about different kinds of sexual behavior I have had throughout my life, including, but not limited to, kissing, embracing, and fondling/petting of the genitals, as well as oral, vaginal, and anal intercourse.

2. As a participant in this study, I may benefit by gaining a more thorough awareness of my sexual history as well as gain a greater understanding of the certain psychological constructs that will be explained to me during the debriefing stage. In addition to these benefits, I will also receive Research Participation credit for my participation.

3. The procedure will be as follows: Following my consent to participate in this study, I will respond to a series of questions via an internet-based survey. From the point of consent, I have 48 hours to complete the survey. At any point during the study, I can stop answering questions and, by logging back into the survey, I will continue at the last question answered. Upon completion, I will read the debriefing component of the study. The study will take between 45 minutes to one hour based on my responses to the questions.

4. The discomforts and stresses that I may face during this research are:
I may be asked to provide some personal information regarding my sexual history in order to complete the questionnaires. Specifically, I will be asked about sexual contact. In order to make this study a valid one, some information about my participation and the purpose of this study will be withheld until after the study. Thus, I may face some discomfort or stress as a result of some of the information about my participation being withheld until after the study.

5. No risks are foreseen. If I do become uncomfortable or distressed, I will be able to withdraw from the study without losing RP Pool Credit. If I would like to receive mental health services, I can contact the University of Georgia Psychology Clinic at (706) 542-1173 or ask the researcher for other referrals. The UGA Psychology Clinic determines fee structure using a sliding scale assessment based on one's annual income. The student receiving services is responsible for fees.

6. My responses to this study will be confidential and will not be released in any individually identifiable form. There is a limit to the confidentiality that can be guaranteed due to the technology itself. All data will be destroyed by January 2010.
7. To continue my participation in this study, I must be at least 18 years old. If I am not at least 18 years old, I must immediately discontinue my participation in this study and contact Josh Spitalnick at jsspitalnick@hotmail.com.
8. The researcher can answer any further questions about the research now or during the course of the study by e-mailing him at jsspitalnick@hotmail.com or calling him at (706) 542-1173.

For question or problems about your rights please call or write:
Chris A. Joseph, Ph.D., Human Subject Office
University of Georgia, 606A Boyd Graduate Studies Research Center
Athens, Georgia 30602-7411
Telephone: (706) 542-3199; Email: IRB @uga.edu

*****By checking "Yes" to statement below, I am giving my consent to participate in this study and that the researchers have answered all of my questions to my satisfaction prior to completing the survey (if needed). If I want a copy of this consent form, I can print this page by going to File, then Print. If for any reason I do not want to continue with this experiment, I can check "No" and, although I will receive no credit for my participation, I will end this experiment without any penalties.**

1. I agree to these conditions outlined above and wish to continue with the study.

Check: Yes or No

Survey

****

(Demographics)

2. Please type your UGA ID Number (This is the number on the front of your UGA ID card. Without this exact number, you cannot receive credit for your participation).
3. Please fill in your age. If you want to skip this question, just type skip: _____
4. How would you define your race/ethnicity:
   (1) White (not Hispanic)
   (2) Black (not Hispanic)
   (3) Hispanic
   (4) Asian or Pacific Islander
   (5) Biracial/Multiracial
   (6) Other
   (7) I choose not to answer this question
5. Marital Status
   (1) Never Married
   (2) Married or Cohabitating (living with your partner)
   (3) Separated
   (4) Divorced
   (5) Widowed
   (6) I choose not to answer this question
6. Relationship status
   (1) single, not dating.
   (2) single, and dating.
   (3) in a steady relationship that is sexually exclusive (not having sex with anyone except your partner)
   (4) in a steady relationship that is NOT sexually exclusive (having sex with others in addition to your dating partner)
   (5) in a steady relationship in which you have not had sex with this partner
   (6) Other
   (7) I choose not to answer this question
7. Year in school
   (1) 1st year
   (2) 2nd year
   (3) 3rd year
   (4) 4th year
   (5) 5th year
   (6) I choose not to answer this question
8. How would you define your religious identification
   1) Catholic
   2) Protestant
   3) Baptist
   4) Muslim
   5) Jewish
   6) Hindu

7) Presbyterian
8) Jehovah's Witness
9) Atheist
10) Mormon
11) I do not identify with any particular religion
12) I choose not to answer this question

9. Do you consider yourself a practicing member of that religion
    1) Yes
    2) No
    3) I choose not to answer this question

10. Rate the degree to which you currently feel sexually attracted to members of the same sex as compared to those of the opposite sex on the following scale: (make sure added total equals 100

To the same sex	**0**	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**
To opposite sex	**100**	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**	**0**

For example 0 = Not attracted to men at all
100 Exclusively attracted to women

50 = Equally attracted to men
50 Equally attracted to women

100 = Exclusively attracted to men
0 Not attracted to women at all

or any other ratios.
**You can skip this question by not filling out the blanks.
_____ To the same sex.
_____ To the opposite sex.

(Sexual experiences questionnaire)

11. At what age did you engage in your first sexual intercourse?
    I have never had sexual intercourse
    13
    14
    15
    16
    17

18
19
20
21
22
23
24
I choose not to answer this question

12. How many individuals have you had sexual intercourse with before beginning college? (If you choose to skip this question, type SKIP in the blank).

13. How many individuals have you had sexual intercourse with since beginning college? (If you choose to skip this question, type SKIP in the blank).

14. In your lifetime, how many individuals have you had intercourse with? (If you choose to skip this question, type SKIP in the blank).

15. In the last two months, how many individuals have you had sexual intercourse with? (If you choose to skip this question, type SKIP in the blank).

16. In the last two months, how many times have you had sexual intercourse? (If you choose to skip this question, type SKIP in the blank).

17. When was the last time you had sexual intercourse?
Within the past week
Within the last month
Within the last 6 months
Within the last 12 months
Within the last 5 years
I have never had sexual intercourse
I choose not to answer this question

18. Are you currently in a dating relationship? (If you choose to skip this question, type SKIP in the blank).

19. What is the length of your current relationship?
Less than one month
Less than two months
Less than 6 months
Less than one year
Less than two years
Less than 5 years
Other (please specify)

I choose not to answer this question

20. Is this dating relationship monogamous? (If you choose to skip this question, type SKIP in the blank).

Monogamous is defined as being in a relationship in which you neither date others nor engage in any sexual behavior with anyone other than your current partner.

21. Is this a relationship in which you have engaged in sexual intercourse with this partner? (If you choose to skip this question, type SKIP in the blank).

22. When having vaginal intercourse with your current partner, how often do you or your partner use a condom?

Never
Occasionally
Most of the time
Always
I do have oral or anal intercourse with my partner, but not vaginal intercourse
I have not had sex with my current partner
I choose not to answer this question

23. When having anal intercourse with your current partner, how often do you or your partner use a condom?

Never
Occasionally
Most of the time
Always
I do have oral or vaginal intercourse with my partner, but not anal intercourse
I have not had sex with my current partner
I choose not to answer this question

24. When having oral intercourse with your current partner, how often do you or your partner use a condom?

Never
Occasionally
Most of the time
Always
I do have anal or vaginal intercourse with my partner, but not oral intercourse
I have not had sex with my current partner
I choose not to answer this question

25. Based on the last fives times you have had sexual intercourse with anyone, how many times did you or your partner use a condom:

0 times
1 time
2 times

3 times
4 times
5 times
I have never had sexual intercourse
Other (please specify)
I choose not to answer this question

26. When having intercourse with casual partners, how often do you or your partner use a condom:
Casual partners are defined as individuals you have sexual intercourse with but who you do not consider someone you are dating exclusively
Never
Occasionally
Most of the time
Always
I do not have sex with casual partners
I choose not to answer this question

27. In the past year, how many times have you had intercourse (vaginal, oral, or anal) with someone whom you just met that day/night?
Never
1 time
2 times
3 times
4 times
Other (please specify)
I choose not to answer this question

28. In the past year, how many times have you had sex (vaginal, oral, or anal) with someone one time but never had contact with them again (also called "one night stand")?
Never
1 time
2 times
3 times
4 times
Other (please specify)
I choose not to answer this question

29. When having sex, how often are you using alcohol BEFORE the sexual encounter?
Never
Rarely
Sometimes
Most of the time
Always
I choose not to answer this question

30. When having sex, how often are you using alcohol DURING the sexual encounter?

Never
Rarely
Sometimes
Most of the time
Always
I choose not to answer this question

31. When having sex, how often are you using drugs (for example, marijuana, LSD, ecstasy, cocaine, mushrooms, ruffies, painkillers, etc.) BEFORE the sexual encounter?

Never
Rarely
Sometimes
Most of the time
Always
I choose not to answer this question

32. When having sex, how often are you using drugs (for example, marijuana, LSD, ecstasy, cocaine, mushrooms, ruffies, painkillers, etc.) DURING the sexual encounter?

Never
Rarely
Sometimes
Most of the time
Always
I choose not to answer this question

33. Before having sexual intercourse, what prevents you from using a condom?

This does not apply to me, I always use a condom
Forgetfulness/I forget to carry condoms with me
I choose not to use condoms
My partner uses some form of protection
Using condoms decreases sexual stimulation
I know my partner well enough that we don't need a condom
Other (please specify)
I choose not to answer this question

34. Have you ever been diagnosed with a sexually transmitted disease? (If you choose to skip this question, type SKIP in the blank).

35. If so, which one(s)?

Chlamydia
Gonorrhea
Genital Warts or human papilloma virus (HPV)
Herpes
Hepatitis B
HIV/AIDS

I have never been diagnosed with an STD
Other (please specify)
I choose not to answer this question

36. Have you ever been treated for a sexually transmitted disease? (If you choose to skip this question, type SKIP in the blank).

37. If so, which one(s)?
Chlamydia
Gonorrhea
Genital Warts or human papilloma virus (HPV)
Herpes
Hepatitis B
HIV/AIDS
I have never been diagnosed with an STD
Other (please specify)
I choose not to answer this question

38. Have you ever been tested for HIV/AIDS? (If you choose to skip this question, type SKIP in the blank).

39. Have you ever received sex education in middle or high school? (If you choose to skip this question, type SKIP in the blank).

40. What/who do you think has been most influential in the way you think about sex?
Family
Friends
School
Media
A past sexual relationship
I don't know
Other (please specify)
I choose not to answer this question

3. (Derogatis Sexual Functioning Inventory)

Below is a list of sexual experiences that people have. We would like to know which of these sexual behaviors you have experienced. Please indicate those experiences you have personally had by placing a check ([4]) under the YES column for that experience. If you have not had the experience place your check under the NO column. If you answer YES, please indicate the gender of the other person(s) with whom you shared the experience

when asked. ** You can skip any of these questions that you choose simply by checking the answer SKIP.

	YES/No	Gender of partner
41. Male lying prone on female (clothed)	[ ]	[ ]
42. Stroking and petting your sexual partner's genitals		
With another male	[ ]	[ ]
With another female	[ ]	[ ]
43. Erotic embrace (clothed)		
With another male	[ ]	[ ]
With another female	[ ]	[ ]
44. Intercourse-vaginal entry from rear	[ ]	[ ]
45. Having genitals caressed by your sexual partner		
With another male	[ ]	[ ]
With another female	[ ]	[ ]
46. Mutual oral stimulation of genitals		
With another male	[ ]	[ ]
With another female	[ ]	[ ]
47. Oral stimulation of your partner's genitals		
With another male	[ ]	[ ]
With another female	[ ]	[ ]
48. Vaginal or anal intercourse side-by-side		
With another male	[ ]	[ ]
With another female	[ ]	[ ]
49. Kissing of sensitive (non-genital) areas of the body		
With another male	[ ]	[ ]
With another female	[ ]	[ ]
50. Intercourse- sitting position	[ ]	[ ]
51. Masturbating alone	[ ]	[ ]
52. Male kissing female's nude breasts	[ ]	[ ]
53. Having your anal area caressed		
With another male	[ ]	[ ]
With another female	[ ]	[ ]
54. Breast petting (clothed)	[ ]	[ ]

55. Caressing your partner's anal area
    With another male [ ] [ ]
    With another female [ ] [ ]

56. Intercourse- female superior position [ ] [ ]

57. Mutual petting of genitals to orgasm
    With another male [ ] [ ]
    With another female [ ] [ ]

58. Having your genitals orally stimulated
    With another male [ ] [ ]
    With another female [ ] [ ]

59. Mutual undressing of each other
    With another male [ ] [ ]
    With another female [ ] [ ]

60. Deep kissing
    With another male [ ] [ ]
    With another female [ ] [ ]

61. Vaginal Intercourse- male superior position [ ] [ ]

62. Anal intercourse
    With another male [ ] [ ]
    With another female [ ] [ ]

63. Kissing on the lips
    With another male [ ] [ ]
    With another female [ ] [ ]

64. Breast petting (nude) [ ] [ ]

4. (Sexual self-schema)

Below is a list of 45 adjectives. For each word, consider whether or not the term describes you. Choose a number for each adjective to indicate how accurately the adjective describes you. There are no right or wrong answers. Please be thoughtful and honest. Question: **To what extent does the term _____ describe me?**

Rating scale:

Not at all descriptive of me	Mostly not descriptive of me	Not really descriptive of me	Neutral	Sort of descriptive of me	Largely descriptive of me	Exactly descriptive of me	I want to skip this question

65. humorous
66. conservative
67. smart
68. soft-hearted
69. unpleasant
70. powerful
71. spontaneous
72. shallow
73. independent
74. inexperienced
75. domineering
76. healthy
77. loving
78. helpful
79. passive
80. open-minded
81. sloppy
82. feeling
83. arousable
84. rude
85. broad-minded
86. passionate
87. wise
88. aggressive
89. polite
90. revealing
91. warm-hearted
92. stingy
93. exciting
94. direct
95. sensitive
96. responsible
97. reserved
98. experienced
99. good natured
100. romantic
101. shy
102. compassionate
103. liberal
104. kind
105. individualistic
106. sensual
107. outspoken
108. lazy
109. excitable

5. (AIDS Risk knowledge Test)

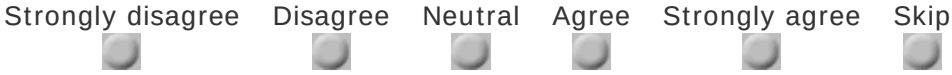
This is a true/false test. Some of the statements are true and some are accurate, while others are false and inaccurate. Please answer to the best of your ability.

110. Most people who transmit the AIDS virus look unhealthy.
111. Anal intercourse is high risk for transmitting the AIDS virus.
112. Oral intercourse carries risk for AIDS virus transmission.
113. A person can be exposed to the AIDS virus in one sexual contact.
114. Keeping in good physical condition is the best way to prevent exposure to the AIDS virus.
115. It is unwise to touch a person with AIDS.
116. Condoms make intercourse completely safe.
117. Showering after sex greatly reduces the transmission of AIDS.
118. When people become sexually exclusive with one another, they no longer need to follow "safe sex" guidelines.
119. Oral sex is safe if the partners "don't swallow".
120. Most people who have been exposed to the AIDS virus quickly show symptoms of serious illness.
121. By reducing the number of different sexual partners, you are effectively protected from AIDS.
122. The AIDS virus does not penetrate unbroken skin.
123. Female-to-male transmission of the AIDS virus has not been transmitted.
124. Sharing toothbrushes and razors can transmit the AIDS virus.
125. Pre-ejaculatory fluids carry the AIDS virus.
126. Intravenous drug users are at risk for AIDS when they share needles.
127. A person must have many different sexual partners to be at risk from AIDS.
128. People carrying the AIDS virus generally feel quite ill.
129. Vaginal intercourse carries high risk for AIDS virus transmission.
130. Withdrawal immediately before orgasm makes intercourse safe.
131. Persons who are exclusively heterosexual are not at risk from AIDS.
132. Health persons in AIDS risk groups should not donate blood.
133. Sharing kitchen utensils or a bathroom with a person with AIDS poses no risk.
134. Intravenous drug users become exposed to the AIDS virus because the virus is often contained in heroin, amphetamines, and the injected drugs.
135. A wholesome diet and plenty of sleep will keep a person from becoming exposed to the AIDS virus.
136. A cure of AIDS is expected within the next two years.
137. It is more important to take precautions against AIDS in large cities than in small cities.
138. A negative result on the AIDS virus antibody test can occur even for people who carry the virus.

139. A positive result on the AIDS virus antibody test can occur even for people who do not carry the virus.
140. Coughing does not spread AIDS.
141. Only receptive (passive) anal intercourse transmits AIDS.
142. Most present cases of AIDS are due to blood transfusions that took place before 1984.
143. Most persons exposed to the AIDS virus know they are infected.
144. A great deal is now known about how the AIDS virus is transmitted.
145. Donating blood carries no AIDS risk for the donor.
146. No cases of AIDS have ever been linked to social (dry) kissing.
147. Mutual masturbation and body rubbing are low risk unless the partners have cuts or scratches.
148. People who become exposed to the AIDS virus through needle-sharing can transmit the virus to others during sexual activities.
149. The AIDS virus can be transmitted by mosquitoes or cockroaches.

6. (Sexual Risks Scale)

Please read each of the following statements and indicate, on the answer sheet, the response that best fits your feeling about the statement based on these answers:

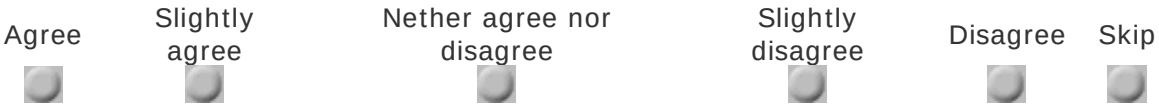


150. It is a hassle to use condoms.
151. People can get the same pleasure from "safer" sex as from unprotected sex.
152. Using condoms interrupts sex play.
153. The proper use of a condom could enhance sexual pleasure.
154. Condoms are irritating.
155. I think "safer" sex would get boring fast.
156. "Safer" sex reduces the mental pleasure of sex.
157. The idea of using a condom doesn't appeal to me.
158. Condoms ruin the natural sex act.
159. Generally, I am in favor of using condoms.
160. Condoms interfere with romance.
161. The sensory aspects (smell, touch, etc.) of condoms make them unpleasant.
162. With condoms, you can't really "give yourself over" to your partner.
163. If I had sex and I told my friends that I did not use condoms, they would be angry or disappointed.
164. My friends talk a lot about "safer" sex.
165. My friends and I encourage each other before dates to practice "safer" sex.
166. If a friend knew that I had sex on a date, he/she wouldn't care if I had used a condom or not.
167. When I think that one of my friends might have sex on a date, I ask them if they have a condom.

168. If a friend knew that I might have sex on a date, he/she would ask me if I were carrying a condom.
169. If I thought that one of my friends had sex on a date, I would ask them if they used a condom.
170. My sexual experiences do not put me at risk for HIV/AIDS.
171. There is a possibility that I have HIV/AIDS.
172. I may have had sex with someone who was at risk for HIV/AIDS.
173. I am at risk for HIV/AIDS.
174. When I socialize, I usually drink alcohol or use drugs.
175. If I had a date, I would probably not drink alcohol or use drugs.
176. If I were going to have sex, I would take precautions to reduce my risk of HIV/AIDS.
177. "Safer" sex is a habit for me.
178. I intend to follow "safer" sex guidelines within the next year.
179. If I were going to have sex in the next year, I would use condoms.
180. I would avoid using condoms if at all possible.
181. I am determined to practice "safer" sex.
182. I would try to use a condom when I had sex.
183. If my partner wanted me to have unprotected sex, I would probably "give in".
184. If my partner wanted me to participate in "risky" sex and I suggested a lower-risk alternative, we would have the "safer" sex instead.
185. If my partner wanted me to have unprotected sex and I made some excuse to use a condom, we would still end up having unprotected sex.
186. If my partner wanted me to participate in "risky" sex and I said that we needed to be safer, we would still probably end up having "unsafe" sex.
187. If a sexual partner didn't want to use condoms, we would have sex without using condoms.

7. (The Sexuality Scale)

The statements listed below describe certain attitudes toward human sexuality which different people may have. As such, there are no right or wrong answers, only personal responses. For each item you will be asked to indicate how much you agree or disagree with the statement listed in that item. Use the following scale to provide your responses:



188. I am a good sexual partner.
189. I am depressed about the sexual aspects of my life.
190. I think about sex all the time.
191. I would rate my sexual skill quite highly.
192. I feel good about my sexuality.
193. I think about sex more than anything else.
194. I am better at sex than most other people.

195.I am disappointed about the quality of my sex life.
196.I don't daydream about sexual situations.
197.I sometimes have doubts about my sexual competence.
198.Thinking about sex makes me happy.
199.I tend to be preoccupied with sex.
200.I am not very confident in sexual encounters.
201.I derive pleasure and enjoyment from sex.
202.I'm constantly thinking about having sex.
203.I think of myself as a very good sexual partner.
204.I feel down about my sex life.
205.I think about sex a great deal of the time.
206.I would rate myself low as a sexual partner.
207.I feel unhappy about my sexual relationships.
208.I seldom think about sex.
209.I am confident about myself as a sexual partner.
210.I feel pleased with my sex life.
211.I hardly ever fantasize about having sex.
212.I am not very confident about my sexual skill.
213.I feel sad when I think about my sexual experiences.
214.I probably think about sex less often than most people.
215.I sometimes doubt my sexual competence.
216.I am not discouraged about sex.
217.I don't think about sex very often.

8. (**Condom Use Self-Efficacy)**

Please read each of the following statements and indicate, on the answer sheet, the response that best fits your feeling about the statement based on these answers:

Strongly agree Agree Undecided Disagree Strongly disagree Skip

218. I feel confident in my ability to put a condom on myself or my partner.
219. I feel confident I could purchase condoms without feeling embarrassed.
220. I feel confident I could remember to carry a condom with me should I need one.
221. I feel confident in my ability to discuss condom usage with any partner I might have.
222. I feel confident in my ability to suggest using condoms with a new partner.
223. I feel confident I could suggest using a condom without my partner feeling "diseased".
224. I feel confident in my own or my partner's ability to maintain an erection while using a condom.
225. I would feel embarrassed to put a condom on myself or my partner.
226. If I were to suggest using a condom to a partner, I would feel afraid that he or she would reject me.

227. If I were unsure of my partner's feelings about using condoms, I would not suggest using one.
228. I feel confident in my ability to use a condom correctly.
229. I would feel comfortable discussing condom use with a potential sexual partner before we ever had any sexual contact (e.g. hugging, kissing, caressing, etc.)
230. I feel confident in my ability to persuade a partner to accept using a condom when we have intercourse.
231. I feel confident I could gracefully remove and dispose of a condom when we have intercourse.
232. If my partner and I were to try to use a condom and did not succeed, I would feel embarrassed to try to use one again (e.g. not being able to unroll condom, putting it on backwards, or awkwardness).
233. I would not feel confident suggesting using condoms with a new partner because I would be afraid he or she would think I've had a homosexual experience.
234. I would not feel confident suggesting using condoms with a new partner because I would be afraid he or she would think I have a sexually transmitted disease.
235. I would not feel confident suggesting using condoms with a new partner because I would be afraid he or she would think I thought they had a sexually transmitted disease.
236. I would feel comfortable discussing condom use with a potential partner before we ever engaged in intercourse.
237. I feel confident in my ability to incorporate putting a condom on myself or my partner into foreplay.
238. I feel confident that I could use a condom with a partner without "breaking the mood."
239. I feel confident in my ability to put a condom on myself or my partner quickly.
240. I feel confident I could use a condom during intercourse without reducing any sexual sensations.
241. I feel confident that I would remember to use a condom even after I have been drinking.
242. I feel confident that I would remember to use a condom even if I were high.
243. If my partner didn't want to use a condom during intercourse, I could easily convince him or her that it was necessary to do so.
244. I feel confident that I could use a condom successfully.
245. I feel confident I could stop to put a condom on myself or my partner even in the heat of passion.

9. (Assertive Sexual Communication Scales)

Think about a person you usually have sex with or someone you used to have sex with regularly. Answer the next questions with that person in mind. Think about what you would do even if you have not done some of these things.

Strongly agree Agree Undecided Disagree Strongly disagree Skip

236. I let my partner know what I do not like in sex.
237. I let my partner know how I like to be touched.
238. I let my partner know if I want my partner to keep doing something I like in sex.
239. I let my partner know if my partner does not please me in sex.
240. I tell my partner to stop if my partner touches me in a way I don't like.
241. I let my partner know what feels good to me in sex.
242. I would ask if I want to know if my partner ever had an HIV test.
243. 1 would ask my partner about the AIDS risk of his or her past partners, if I want to know.
244. I would ask if I want to know if my partner ever had a sexually transmitted disease.
245. I would ask if I want to know if my partner ever had sex with someone who shoots drugs with a needle.

10. (Marlowe-Crowne Social Desirability Scale)

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is *True* or *False* as it pertains to you personally.

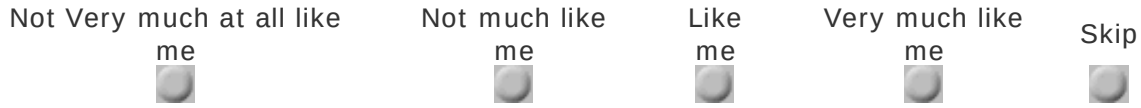
True False Skip

246. Before voting I thoroughly investigate the qualifications of all the candidates.
247. I never hesitate to go out of my way to help someone in trouble.
248. It is sometimes hard for me to go on with my work, if I am not encouraged.
249. I have never intensely disliked anyone.
250. On occasion I have had doubts about my ability to succeed in life.
251. I sometimes feel resentful when I don't get my way.
252. I am always careful about my manner of dress.
253. My table manners at home are as good as when I eat out in a restaurant.
254. If I could get into a movie without paying and be sure I was not seen, I would probably do it.
255. On a few occasions, I have given up doing something because I thought too little of my ability.
256. I like to gossip at times.
257. There have been times when I felt like rebelling against people in authority even though I knew they were right.
258. No matter who I'm talking to, I'm always a good listener.
259. I can remember "playing sick" to get out of something.
260. There have been occasions when I took advantage of someone.
261. I'm always willing to admit it when I make a mistake.
262. I always try to practice what I preach.

263. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people.
264. I sometimes try to get even rather than forgive and forget.
265. When I don't know something I don't at all mind admitting it.
266. I am always courteous, even to people who are disagreeable.
267. At times I have really insisted on having things my own way.
268. There have been occasions when I felt like smashing things.
269. I would never think of letting someone else be punished for my wrongdoings.
270. I never resent being asked to return a favor.
271. I have never been irked when people expressed ideas very different from my own.
272. I never make a long trip without checking the safety of my car.
273. There have been times when I was quite jealous of the good fortune of others.
274. I have almost never felt the urge to tell someone off.
275. I am sometimes irritated by people who ask favors of me.
276. I have never felt that I was punished without cause.
277. I sometimes think when people have a misfortune they only got what they deserved.
278. I have never deliberately said something that hurt someone's feelings.

11. (Sexual Sensation seeking)

Please read each of the following statements and indicate, on the answer sheet how much the following statements are like you using the following scale



278. I like wild “uninhibited” sex.
279. The physical sensations are the most important things about having sex.
280. I enjoy the sensation of intercourse without a condom.
281. My sexual partners probably think that I am a risk taker.
282. When it comes to sex physical attraction is more important to me than how well I know the person.
283. I enjoy the company of “sensual” people.
284. I enjoy watching “X rated” videos.
285. I have said things that were not exactly true to get a person to have sex with me.
286. I am interested in trying out new sexual experiences.
287. I feel like exploring my sexuality.
288. I like to have new and exciting sexual experiences and sensations.

****************************Debriefing Statement***************************

Thank you for your participation in the study entitled Men's Relationship Experiences. It is very important that you do not share information in this study with your classmates because they may be participants in the future. Your cooperation with this policy is greatly appreciated.

The purpose of this study was to explore the relationship among the ways you think and feel about yourself sexually with sexual behaviors, decisions, and attitudes. Additionally, this study is examining whether one's evaluation of himself sexually affects whether he engages in risky sexual behavior, such as not using some form of protection (e.g., condoms) or engaging in frequent sexual intercourse with multiple partners. The administered questionnaires were used to assess these factors.

If you are concerned about any stress or discomfort that you have experienced while participating in this study, you are encouraged to seek services at the University of Georgia Psychology Clinic at (706) 542-1173. Additional referrals may be provided upon request.

If you would like to learn about the results of this study, please contact Josh Spitalnick by mailing a letter requesting the results of the study entitled Men's Relationship Experiences. Please include your name and permanent address in this letter. You can also contact the experimenter through the address provided on your Consent Form.

Again, if you have any additional questions regarding this study, please contact Josh Spitalnick or Dr. Steven Beach at (706) 542-1173. Once again, thank you for your participation.